



ELSEVIER

Agriculture, Ecosystems and Environment 61 (1997) 195–205

**Agriculture
Ecosystems &
Environment**

Author Index, Volumes 52–61

- Abdel-Sabour, M.F. and M.A. Abo El-Seoud
Effects of organic-waste compost addition
on sesame growth, yield and chemical com-
position 60 (1996) 157
- Abo El-Seoud, M.A., *see* Abdel-Sabour, M.F.
et al.
- Abrol, Y.P., *see* Pal, M. et al.
- Acock, B., *see* Reddy, V.R. et al.
- Adam, H.S., *see* Mohammed, A.E. et al.
- Agnolucci, M., *see* Valdrighi, M.M. et al.
- Agrawal, M., *see* Verma, M. et al.
- Agustin, P.C., *see* Garrity, D.P. et al.
- Ahmad, I. and D. Malloch
Interaction of soil microflora with the bio-
herbicide phosphinothricin 54 (1995) 165
- Ainsworth, N., I. Fumagalli, A. Giorcelli, L.
Mignanego, G. Schenone and L. Vietto
Assessment of EDU stem injections as a
technique to investigate the response of trees
to ambient ozone in field conditions 59 (1996) 33
- Al-Khazraji, M.L., *see* Miller, R.W. et al.
- Alegre, J.C. and D.K. Cassel
Dynamics of soil physical properties under
alternative systems to slash-and-burn 58 (1996) 39
- Alegre, J.C. and M.R. Rao
Soil and water conservation by contour
hedging in the humid tropics of Peru 57 (1996) 17
- Alford, D.P., *see* Banker, B.C. et al.
- Alfthan, G., *see* Wang, D. et al.
- Ali, A.M.S.
Population pressure, environmental con-
straints and agricultural change in
Bangladesh: examples from three agroec-
osystems 55 (1995) 95
- Allison, D., *see* Tanigoshi, L.K. et al.
- Altieri, M.A., *see* Costello, M.J. et al.
- Amosova, Y., *see* Iakimenko, O. et al.
- Anderson, D.W., *see* Lessa, A.S.N. et al.
- Anderson, M.D., C.S. Hollingsworth, V. Van
Zee, W.M. Coli and M. Rhodes
Consumer response to integrated pest man-
agement and certification 60 (1996) 97
- Andreux, F., *see* Atallah, T. et al.
- Angle, J.S., *see* Ibekwe, A.M. et al.
- Aro, A., *see* Wang, D. et al.
- Ash, A.J., J.G. McIvor, J.P. Corfield and W.H.
Winter
How land condition alters plant–animal re-
lationships in Australia's tropical range-
lands 56 (1995) 77
- Ashenden, T.W., S.A. Bell and C.R. Rafarel
Interactive effects of gaseous air pollutants
and acid mist on two major pasture grasses 57 (1996) 1
- Asteraki, E.J., C.B. Hanks and R.O. Clements
The influence of different types of grassland
field margin on carabid beetle (Coleoptera,
Carabidae) communities 54 (1995) 195
- Atallah, T., F. Andreux, T. Choné and F. Gras
Effect of storage and composting on the
properties and degradability of cattle ma-
nure 54 (1995) 203
- Azcón, R., *see* Monzon, A. et al.
- Azcón, R., *see* Ruiz-Lozano, J.M. et al.
- Azzari, A.S., *see* Gardiner, D.T. et al.
- Badamchian, B., *see* Gardiner, D.T. et al.
- Banker, B.C., H.K. Kludze, D.P. Alford, R.D.
DeLaune and C.W. Lindau
Methane sources and sinks in paddy rice
soils: relationship to emissions 53 (1995) 243
- Barbayannis, N., *see* Veresoglou, D.S. et al.
- Baudry, J., *see* Burel, F. et al.
- Baumgärtner, J., *see* Dreyer, H. et al.
- Beare, M.H., *see* Hu, S. et al.
- Bekunda, M.A. and P.L. Woomer
Organic resource management in banana-
based cropping systems of the Lake Victo-
ria Basin, Uganda 59 (1996) 171
- Bell, J.N.B., *see* Horner, J.M. et al.
- Bell, S.A., *see* Ashenden, T.W. et al.
- Bell, W., *see* Fujisaka, S. et al.
- Bender, J., *see* Manderscheid, R. et al.
- Berry, E.C., *see* Lewis, L.C. et al.
- Bing, L.A., *see* Lewis, L.C. et al.
- Blake, L., *see* Sverdrup, H. et al.
- Boatman, N.D., *see* Rew, L.J. et al.
- Boatman, N.D., *see* Theaker, A.J. et al.
- Bollich, P.K., *see* Lindau, C.W. et al.
- Booltink, H.W.G.
Field monitoring of nitrate leaching and wa-
ter flow in a structured clay soil 52 (1995) 251

- Bottrell, D.G., *see* Coll, M. et al.
- Bouma, J., *see* Minh, L.Q. et al.
- Boutin, C., *see* Freemark, K. et al.
- Boutin, C., *see* Jobin, B. et al.
- Bower, C.C., *see* Penrose, L.J. et al.
- Boyer, J., *see* Perret, S. et al.
- Brady, N.C.
Alternatives to slash-and-burn: a global imperative 58 (1996) 3
- Brambilla, G., *see* Migliore, L. et al.
- Brandle, J.R., *see* Easterling, W.E. et al.
- Brough, E.J., B. Frank, F. Page and S. Lindsay
Integrated mite control in apples in Queensland, Australia 60 (1996) 129
- Brown, R., *see* Clements, D.R. et al.
- Bryant, R.B., *see* Kleinman, P.J.A. et al.
- Burel, F. and J. Baudry
Species biodiversity in changing agricultural landscapes: A case study in the Pays d'Auge, France 55 (1995) 193
- Burel, F., *see* Charrier, S. et al.
- Burke, J.I., *see* Finnan, J.M. et al.
- Burn, A., *see* Oldham, R.S. et al.
- Businelli, D., *see* Gigliotti, G. et al.
- Byard, R., K.C. Lewis and F. Montagnini
Leaf litter decomposition and mulch performance from mixed and monospecific plantations of native tree species in Costa Rica 58 (1996) 145
- Cabrera, F., *see* Murillo, J.M. et al.
- Caldwell, P.M., *see* Samways, M.J. et al.
- Cameron, K.C., A.W. Rate, M.J. Noonan, S. Moore, N.P. Smith and L.E. Kerr
Lysimeter study of the fate of nutrients following subsurface injection and surface application of dairy pond sludge to pasture 58 (1996) 187
- Candela, L., *see* Guimerà, J. et al.
- Cao, M., J.B. Dent and O.W. Heal
Methane emissions from China's paddyland. 55 (1995) 129
- Cardwell, K.F. and J.A. Lane
Effect of soils, cropping system and host phenotype on incidence and severity of *Striga gesnerioides* on cowpea in West Africa 53 (1995) 253
- Casoria, P., *see* Migliore, L. et al.
- Cassel, D.K., *see* Alegre, J.C. et al.
- Chakravarty, B. and S. Srivastava
Effect of cadmium and zinc interaction on metal uptake and regeneration of tolerant plants in linseed 61 (1997) 45
- Chaney, R.L., *see* Ibekwe, A.M. et al.
- Chaney, W.E., *see* Wyland, L.J. et al.
- Charmillot, P.-J., *see* Jeanneret, P. et al.
- Charrier, S., S. Petit and F. Burel
Movements of *Abax parallelepipedus* (Coleoptera, Carabidae) in woody habitats of a hedgerow network landscape: a radio-tracing study 61 (1997) 133
- Chavez, A.Q., *see* Finckh, M.R. et al.
- Chen, Y., S. Tessier, A.F. MacKenzie and M.R. Laverdière
Nitrous oxide emission from an agricultural soil subjected to different freeze-thaw cycles 55 (1995) 123
- Choné, T., *see* Atallah, T. et al.
- Christie, M., *see* Prokopy, R.J. et al.
- Chukwuma, Sr., C.
Evaluating baseline data for copper, manganese, nickel and zinc in rice, yam, cassava and guinea grass from cultivated soils in Nigeria 53 (1995) 47
- Civitareale, C., *see* Migliore, L. et al.
- Clawson, S., *see* Mowat, D.J. et al.
- Clements, D.R., S.F. Weise, R. Brown, D.P. Stonehouse, D.J. Hume and C.J. Swanton
Energy analysis of tillage and herbicide inputs in alternative weed management systems. 52 (1995) 119
- Clements, R.O., *see* Asteraki, E.J. et al.
- Cleveland, C.J.
The direct and indirect use of fossil fuels and electricity in USA agriculture, 1910-1990 55 (1995) 111
- Coleman, D.C., *see* Hu, S. et al.
- Coli, W.M., *see* Anderson, M.D. et al.
- Coll, M. and D.G. Bottrell
Predator-prey association in mono- and dicultures: Effect of maize and bean vegetation 54 (1995) 115
- Conover, M.R. and G.S. Kania
Annual variation in white-tailed deer damage in commercial nurseries 55 (1995) 213
- Cooke, A.S., *see* Oldham, R.S. et al.
- Cooper, A.B., C.M. Smith and M.J. Smith
Effects of riparian set-aside on soil characteristics in an agricultural landscape: Implications for nutrient transport and retention 55 (1995) 61
- Corbet, S.A.
Insects, plants and succession: advantages of long-term set-aside 53 (1995) 201
- Corbet, S.A., *see* Saville, N.M. et al.
- Corfield, J.P., *see* Ash, A.J. et al.
- Costello, M.J. and M.A. Altieri
Abundance, growth rate and parasitism of *Brevicoryne brassicae* and *Myzus persicae* (Homoptera: Aphididae) on broccoli grown in living mulches 52 (1995) 187
- Cousins, S.H., *see* Park, J. et al.
- Cozzolino, S., *see* Migliore, L. et al.
- Crawford, E., *see* Fujisaka, S. et al.
- Crews, T.E.
The supply of phosphorus from native, inorganic phosphorus pools in continuously cultivated Mexican agroecosystems. 57 (1996) 197
- Cronk, J.K.
Constructed wetlands to treat wastewater from dairy and swine operations: a review 58 (1996) 97

- Crowe, T.M., *see* Witt, A.B.R. et al.
- Cussans, G.W., *see* Miller, A.C.E. et al.
- Dabiri, A., *see* Juo, A.S.R. et al.
- Dai, Q., *see* Finckh, M.R. et al.
- Danielsson, H., *see* Pleijel, H. et al.
- Darvas, B., *see* Polgár, L.A. et al.
- Davis, A.L.V.
 - Seasonal dung beetle activity and dung dispersal in selected South African habitats: implications for pasture improvement in Australia 58 (1996) 157
- DeLaune, R.D., *see* Banker, B.C. et al.
- DeLaune, R.D., *see* Lindau, C.W. et al.
- Dent, J.B., *see* Cao, M. et al.
- De Rouw, A.
 - The fallow period as a weed-break in shifting cultivation (tropical wet forests) 54 (1995) 31
- DesGranges, J.-L., *see* Jobin, B. et al.
- De Wit, J., J.K. Oldenbroek, H. van Keulen and D. Zwart
 - Criteria for sustainable livestock production: a proposal for implementation 53 (1995) 219
- Douds, Jr., D.D., L. Galvez, R.R. Janke and P. Wagoner
 - Effect of tillage and farming system upon populations and distribution of vesicular-arbuscular mycorrhizal fungi. 52 (1995) 111
- Dramstad, W. and G. Fry
 - Foraging activity of bumblebees (*Bombus*) in relation to flower resources on arable land 53 (1995) 123
- Dramstad, W.E., *see* Saville, N.M. et al.
- Dreyer, H. and J. Baumgärtner
 - The influence of post-flowering pests on cowpea seed yield with particular reference to damage by Heteroptera in southern Benin. 53 (1995) 137
- Drinkwater, L.E., *see* Letourneau, D.K. et al.
- Dumsday, R.G., *see* Midmore, D.J. et al.
- Dyck, E. and M. Liebman
 - Crop-weed interference as influenced by a leguminous or synthetic fertilizer nitrogen source: II. Rotation experiments with crimson clover, field corn, and lambsquarters . . 56 (1995) 109
 - Crop-weed interference as influenced by a leguminous or synthetic fertilizer nitrogen source: I. Doublecropping experiments with crimson clover, sweet corn, and lambsquarters 56 (1995) 93
- Easterling, W.E., C.J. Hays, M. McKenney Easterling and J.R. Brandle
 - Modelling the effect of shelterbelts on maize productivity under climate change: An application of the EPIC model 61 (1997) 163
- Edathil, T.T., S. Manian and K. Udaiyan
 - Interaction of multiple VAM fungal species on root colonization, plant growth and nutrient status of tomato seedlings (*Lycopersicon esculentum* Mill.) 59 (1996) 63
- Ekanade, O.
 - Hill-slope agro-ecosystems and their implications on environmental systems in rural southwestern Nigeria 61 (1997) 97
- Ekholm, P., *see* Yli-Halla, M. et al.
- Ellis, E.C. and S.M. Wang
 - Sustainable Traditional Agriculture in the Tai Lake Region of China 61 (1997) 177
- Erasmus, D.J., *see* Goodall, J.M. et al.
- Erich, M.S., *see* Dyck, E. et al.
- Eriksen, J., J.V. Mortensen, J.D. Nielsen and N.E. Nielsen
 - Sulphur mineralisation in five Danish soils as measured by plant uptake in a pot experiment 56 (1995) 43
- Ewete, F.K., *see* Ntonifor, N.N. et al.
- Ezumah, H.C., *see* Olasantan, F.O. et al.
- Filippin, M.C., *see* Viglizzo, E.F. et al.
- Finckh, M.R., A.Q. Chavez, Q. Dai and P.S. Teng
 - Effects of enhanced UV-B radiation on the growth of rice and its susceptibility to rice blast under glasshouse conditions 52 (1995) 223
- Finnan, J.M., M.B. Jones and J.I. Burke
 - A time concentration study on the effects of ozone on spring wheat (*Triticum aestivum* L.). 2. A comparison of indices 57 (1996) 169
- Finnan, J.M., M.B. Jones and J.I. Burke
 - A time-concentration study on the effects of ozone on spring wheat (*Triticum aestivum* L.). 1. Effects on yield 57 (1996) 159
- Flaig, E.G., *see* Reddy, K.R. et al.
- Forseth, I.N., *see* Pausch, R.C. et al.
- Francis, C.A., *see* Franzluebbers, A.J. et al.
- Frank, B., *see* Brough, E.J. et al.
- Franzluebbers, A.J. and C.A. Francis
 - Energy output:input ratio of maize and sorghum management systems in eastern Nebraska 53 (1995) 271
- Franzluebbers, K., *see* Juo, A.S.R. et al.
- Frassinetti, S., *see* Valdrighi, M.M. et al.
- Freemark, K. and C. Boutin
 - Impacts of agricultural herbicide use on terrestrial wildlife in temperate landscapes: A review with special reference to North America 52 (1995) 67
- Fresco, L.O., *see* Meertens, H.C.C. et al.
- Fresco, L.O., *see* Sylla, M. et al.
- Fritz, R. and G. Merriam
 - Fencerow and forest edge architecture in eastern Ontario farmland 59 (1996) 159
- Froud-Williams, R.J., *see* Miller, A.C.E. et al.
- Froud-Williams, R.J., *see* Rew, L.J. et al.
- Froud-Williams, R.J., *see* Theaker, A.J. et al.

- Fry, G., *see* Dramstad, W. et al.
 Fry, G.L.A., *see* Mauremooto, J.R. et al.
 Fry, G.L.A., *see* Saville, N.M. et al.
 Fujisaka, S., W. Bell, N. Thomas, L. Hurtado and E. Crawford
 Slash-and-burn agriculture, conversion to pasture, and deforestation in two Brazilian Amazon colonies 59 (1996) 115
 Fumagalli, I., *see* Ainsworth, N. et al.
 Gajaseni, J.
 Energy analysis of wetland rice systems in Thailand 52 (1995) 173
 Galvez, L., *see* Douds, Jr., D.D. et al.
 Garcia, M.A.
 Relationships between weed community and soil seed bank in a tropical agroecosystem 55 (1995) 139
 Gardiner, D.T., R.W. Miller, B. Badamchian, A.S. Azzari and D.R. Sisson
 Effects of repeated sewage sludge applications on plant accumulation of heavy metals. 55 (1995) 1
 Gardiner, D.T., *see* Miller, R.W. et al.
 Garrity, D.P. and P.C. Agustin
 Historical land use evolution in a tropical acid upland agroecosystem. 53 (1995) 83
 Gaudio, L., *see* Migliore, L. et al.
 Gianinazzi-Pearson, V., *see* Guillemin, J.P. et al.
 Gianinazzi, S., *see* Guillemin, J.P. et al.
 Gigliotti, G., D. Businelli and P.L. Giusquiani
 Trace metals uptake and distribution in corn plants grown on a 6-year urban waste compost amended soil 58 (1996) 199
 Gillespie, A.R., B.K. Miller and K.D. Johnson
 Effects of ground cover on tree survival and growth in filter strips of the Cornbelt Region of the midwestern US 53 (1995) 263
 Giorcelli, A., *see* Ainsworth, N. et al.
 Giusquiani, P.L., *see* Gigliotti, G. et al.
 Goh, K.M., *see* Nguyen, M.L. et al.
 Gómez, I., *see* Pedreño, J.N. et al.
 Goodall, J.M. and D.J. Erasmus
 Review of the status and integrated control of the invasive alien weed, *Chromolaena odorata*, in South Africa 56 (1996) 151
 Gosse, F., *see* Quilleré, I. et al.
 Goulding, K., *see* Sverdrup, H. et al.
 Graetz, D.A., *see* Reddy, K.R. et al.
 Gras, F., *see* Atallah, T. et al.
 Guillemin, J.P., M.O. Orozco, V. Gianinazzi-Pearson and S. Gianinazzi
 Influence of phosphate fertilization on fungal alkaline phosphatase and succinate dehydrogenase activities in arbuscular mycorrhiza of soybean and pineapple 53 (1995) 63
 Guimerà, J., O. Marfà, L. Candela and L. Serano
 Nitrate leaching and strawberry production under drip irrigation management 56 (1995) 121
 Gutman, M., *see* Henkin, Z. et al.
 Hamel, C.
 Prospects and problems pertaining to the management of arbuscular mycorrhizae in agriculture 60 (1996) 197
 Hammar, T., *see* Wang, D. et al.
 Handley, M.K., *see* Piper, J.K. et al.
 Hanks, C.B., *see* Asteraki, E.J. et al.
 Hansen, S.
 Effects of manure treatment and soil compaction on plant production of a dairy farm system converting to organic farming practice 56 (1996) 173
 Haque, I., N.Z. Lupwayi and N. Luyindula
 Inoculation and phosphorus effects on *Desmodium intortum* and *Sesbania sesban* in the Ethiopian highlands 56 (1996) 165
 Harris, G.L., *see* Williams, J.R. et al.
 Hartikainen, H., *see* Yli-Halla, M. et al.
 Harwood, R.R.
 Development pathways toward sustainable systems following slash-and-burn 58 (1996) 75
 Hasken, K.-H. and H.-M. Poehling
 Effects of different intensities of fertilisers and pesticides on aphids and aphid predators in winter wheat 52 (1995) 45
 Havard, K.A., *see* Warman, P.R. et al.
 Haynes, P.J., *see* Inglis, I.R. et al.
 Haynes, R.J., *see* Nguyen, M.L. et al.
 Hays, C.J., *see* Easterling, W.E. et al.
 Heal, O.W., *see* Cao, M. et al.
 Hendrix, P.F., *see* Hu, S. et al.
 Henkin, Z., I. Noy-Meir, U. Kafkafi, M. Gutman and N. Seligman
 Phosphate fertilization primes production of rangeland on brown rendzina soils in the Galilee, Israel. 59 (1996) 43
 Hermans, C. and P. Vereijken
 Grazing animal husbandry based on sustainable nutrient management 52 (1995) 213
 Hewitt, A., *see* Holland, J.M. et al.
 Hilton-Brown, D., *see* Oldham, R.S. et al.
 Hinsley, S.A., *see* Sparks, T.H. et al.
 Hodges, H.F., *see* Reddy, K.R. et al.
 Hoffmann, J.H. and V.C. Moran
 Localized failure of a weed biological control agent attributed to insecticide drift 52 (1995) 197
 Hoffmann, M.P., C.H. Petzoldt, C.R. MacNeil, J.J. Mishanec, M.S. Orfanedes and D.H. Young
 Evaluation of an onion thrips pest management program for onions in New York 55 (1995) 51
 Holland, J.M., S.R. Thomas and A. Hewitt
 Some effects of polyphagous predators on an outbreak of cereal aphid (*Sitobion avenae* F.) and orange wheat blossom midge (*Sitodiplosis mosellana* Géhin) 59 (1996) 181

- Hollingsworth, C.S., *see* Anderson, M.D. et al.
- Horner, J.M. and J.N.B. Bell
Effects of fluoride and acidity on early plant growth 52 (1995) 205
- Hu, S., D.C. Coleman, M.H. Beare and P.F. Hendrix
Soil carbohydrates in aggrading and degrading agroecosystems: influences of fungi and aggregates 54 (1995) 77
- Hulley, P.E., *see* Olckers, T. et al.
- Hume, D.J., *see* Clements, D.R. et al.
- Hunt, P.G., *see* Novak, J.M. et al.
- Hurtado, L., *see* Fujisaka, S. et al.
- Iakimenko, O., E. Otabbong, L. Sadovnikova, J. Persson, I. Nilsson, D. Orlov and Y. Ammosova
Dynamic transformation of sewage sludge and farmyard manure components. 1. Content of humic substances and mineralisation of organic carbon and nitrogen in incubated soils 58 (1996) 121
- Iakimenko, O., *see* Sadovnikova, L. et al.
- Ibekwe, A.M., J.S. Angle, R.L. Chaney and P. van Berkum
Enumeration and N₂ fixation potential of *Rhizobium leguminosarum* biovar *trifolii* grown in soil with varying pH values and heavy metal concentrations 61 (1997) 103
- Ikhile, B., *see* Juo, A.S.R. et al.
- Inglis, I.R., A.J. Isaacson, G.C. Smith, P.J. Haynes and R.J.P. Thearle
The effect on the woodpigeon (*Columba palumbus*) of the introduction of oilseed rape into Britain 61 (1997) 113
- Ingram, J.S.I., *see* Tinker, P.B. et al.
- Isaacson, A.J., *see* Inglis, I.R. et al.
- Ish-Shalom-Gordon, N.
The Mediterranean grazing ecosystems of the Golan Heights 54 (1995) 67
- Jackai, L.E.N., *see* Ntonifor, N.N. et al.
- Jackson, G.E.
The effect of ozone, nitrogen dioxide or nitric oxide fumigation of cereals on the rose grain aphid *Metopolophium dirhodum* 54 (1995) 187
- Jackson, L.E., *see* Wyland, L.J. et al.
- Jäger, H.-J., *see* Manderscheid, R. et al.
- Janke, R.R., *see* Douds, Jr., D.D. et al.
- Jansen, H.G.P., *see* Midmore, D.J. et al.
- Jeanneret, P. and P.-J. Charmillot
Movements of Tortricid moths (Lep. Tortricidae) between apple orchards and adjacent ecosystems 55 (1995) 37
- Jobin, B., J.-L. DesGranges and C. Boutin
Population trends in selected species of farmland birds in relation to recent developments in agriculture in the St. Lawrence Valley 57 (1996) 103
- Johnson, K.D., *see* Gillespie, A.R. et al.
- Jones, M.B., *see* Finnan, J.M. et al.
- Juo, A.S.R. and A. Manu
Chemical dynamics in slash-and-burn agriculture 58 (1996) 49
- Juo, A.S.R., K. Franzluebbers, A. Dabiri and B. Ikhile
Changes in soil properties during long-term fallow and continuous cultivation after forest clearing in Nigeria 56 (1995) 9
- Kafkafi, U., *see* Henkin, Z. et al.
- Kallio, K., *see* Yli-Halla, M. et al.
- Kania, G.S., *see* Conover, M.R. et al.
- Karlsson, G.P., *see* Pleijel, H. et al.
- Karthikeyan, A., *see* Muthukumar, T. et al.
- Kelly, T.C., Y.-c. Lu and J. Teasdale
Economic-environmental tradeoffs among alternative crop rotations 60 (1996) 17
- Kerr, L.E., *see* Cameron, K.C. et al.
- Khan, M.R. and M. Wajid Khan
Effects of ammonia and root-knot nematode on tomato 53 (1995) 71
- Kimple, B., *see* Wyland, L.J. et al.
- Kleinman, P.J.A., D. Pimentel and R.B. Bryant
The ecological sustainability of slash-and-burn agriculture. 52 (1995) 235
- Klonsky, K., *see* Wyland, L.J. et al.
- Kludze, H.K., *see* Banker, B.C. et al.
- Knuuttila, S., *see* Wang, D. et al.
- Kobayashi, K. and M. Okada
Effects of ozone on the light use of rice (*Oryza sativa* L.) plants 53 (1995) 1
- Kobayashi, K., M. Okada and I. Nouchi
Effects of ozone on dry matter partitioning and yield of Japanese cultivars of rice (*Oryza sativa* L.) 53 (1995) 109
- Koike, S.T., *see* Wyland, L.J. et al.
- Kovach, J., *see* Levitan, L. et al.
- Krüger, K. and C.H. Scholtz
Lethal and sublethal effects of ivermectin on the dung-breeding beetles *Euoniticellus intermedius* (Reiche) and *Onitis alexis* Klug (Coleoptera, Scarabaeidae). 61 (1997) 123
- Krüger, K. and C.H. Scholtz
The effect of ivermectin on the development and reproduction of the dung-breeding fly *Musca nevillei* Kleynhans (Diptera, Muscidae) 53 (1995) 13
- Kulakow, P.A., *see* Piper, J.K. et al.
- Lane, J.A., *see* Cardwell, K.F. et al.
- Lane, S.J. and K. Nakamura
The effect of night grazing by wigeon (*Anas penelope*) on winter-sown wheat in Japan and the efficacy of black plastic flags as scaring devices 59 (1996) 81
- Latham, D.M., *see* Oldham, R.S. et al.
- Laverdière, M.R., *see* Chen, Y. et al.
- Lee, E.H., *see* Pausch, R.C. et al.

- Lehmann, J., *see* Schroth, G. et al.
- Lessa, A.S.N., D.W. Anderson and J.O. Moir
Fine root mineralization, soil organic matter and exchangeable cation dynamics in slash and burn agriculture in the semi-arid north-east of Brazil 59 (1996) 191
- Letoumeau, D.K., L.E. Drinkwater and C. Shennan
Effects of soil management on crop nitrogen and insect damage in organic vs. conventional tomato fields 57 (1996) 179
- Levi-Minzi, R., *see* Saviozzi, A. et al.
- Levitán, L., I. Merwin and J. Kovach
Assessing the relative environmental impacts of agricultural pesticides: the quest for a holistic method 55 (1995) 153
- Lewis, K.C., *see* Byard, R. et al.
- Lewis, L.C., E.C. Berry, J.J. Obrycki and L.A. Bing
Aptness of insecticides (*Bacillus thuringiensis* and carbofuran) with endophytic *Beauveria bassiana*, in suppressing larval populations of the European corn borer 57 (1996) 27
- Li, X.Q., *see* Zhang, W.L. et al.
- Liebman, M., *see* Dyck, E. et al.
- Lindau, C.W., P.K. Bollich and R.D. DeLaune
Effect of rice variety on methane emission from Louisiana rice. 54 (1995) 109
- Lindau, C.W., *see* Banker, B.C. et al.
- Lindsay, S., *see* Brough, E.J. et al.
- Little, R.M., *see* Witt, A.B.R. et al.
- Llabrés-Luengo, P., *see* Torres-Castillo, R. et al.
- Lo, C.P.
Environmental impact on the development of agricultural technology in China: the case of the dike-pond ('jitang') system of integrated agriculture-aquaculture in the Zhujiang Delta of China 60 (1996) 183
- Longley, M. and N.W. Sotherton
Factors determining the effects of pesticides upon butterflies inhabiting arable farmland 61 (1997) 1
- López, R., *see* Murillo, J.M. et al.
- Lu, Y.-c., *see* Kelly, T.C. et al.
- Lucas, E.O., *see* Olaniran, F.O. et al.
- Lunardi, D., *see* Valdrighi, M.M. et al.
- Lupwayi, N.Z., *see* Haque, I. et al.
- Luyindula, N., *see* Haque, I. et al.
- Lykouressis, D.P. and G.V. Mentzos
Effects of biological control agents and insecticides on the population development of *Myzus nicotianae* Blackman (Homoptera: Aphididae) on tobacco 52 (1995) 57
- Maaskant, M., *see* Rondan, R. et al.
- MacKenzie, A.F., *see* Chen, Y. et al.
- MacNeil, C.R., *see* Hoffmann, M.P. et al.
- Mäkelä, A., *see* Wang, D. et al.
- Malloch, D., *see* Ahmad, I. et al.
- Manderscheid, R., J. Bender, H.-J. Jäger and H.J. Weigel
Effects of season long CO₂ enrichment on cereals. II. Nutrient concentrations and grain quality 54 (1995) 175
- Manian, S., *see* Edathil, T.T. et al.
- Manian, S., *see* Muthukumar, T. et al.
- Mannion, A.M.
Agriculture, environment and biotechnology 53 (1995) 31
- Manu, A., *see* Juo, A.S.R. et al.
- Manyong, M.V., *see* Weber, G. et al.
- Marfà, O., *see* Guimerà, J. et al.
- Marie, D., *see* Quilleré, I. et al.
- Martín-Olmedo, P., *see* Murillo, J.M. et al.
- Mason, J.F., *see* Phelan, P.L. et al.
- Mason, J.L., *see* Prokopy, R.J. et al.
- Mata-Alvarez, J., *see* Torres-Castillo, R. et al.
- Mataix, J., *see* Pedreño, J.N. et al.
- Mauremooto, J.R., S.D. Wratten, S.P. Worner and G.L.A. Fry
Permeability of hedgerows to predatory carabid beetles 52 (1995) 141
- McFadyen, R.C. and B. Skarratt
Potential distribution of *Chromolaena odorata* (siam weed) in Australia, Africa and Oceania 59 (1996) 89
- McIvor, J.G., *see* Ash, A.J. et al.
- McKenney Easterling, M., *see* Easterling, W.E. et al.
- McKinion, J.M., *see* Reddy, K.R. et al.
- McLaughlin, A. and P. Mineau
The impact of agricultural practices on biodiversity 55 (1995) 201
- Meertens, H.C.C., L.O. Fresco and W.A. Stoop
Farming systems dynamics: Impact of increasing population density and the availability of land resources on changes in agricultural systems. The case of Sukumaland, Tanzania 56 (1996) 203
- Meisinger, J.J., *see* Pausch, R.C. et al.
- Mentzos, G.V., *see* Lykouressis, D.P. et al.
- Merriam, G., *see* Fritz, R. et al.
- Merwin, I., *see* Levitan, L. et al.
- Messing, R.H. and J.M. Rabasse
Oviposition behaviour of the polyphagous aphid parasitoid *Aphidius colemani* Viereck (Hymenoptera: Aphididae) 52 (1995) 13
- Michellon, R., *see* Perret, S. et al.
- Midmore, D.J., H.G.P. Jansen and R.G. Dumsday
Soil erosion and environmental impact of vegetable production in the Cameron Highlands, Malaysia 60 (1996) 29
- Migliore, L., G. Brambilla, P. Casoria, C. Civitareale, S. Cozzolino and L. Gaudio
Effect of sulphadimethoxine contamination on barley (*Hordeum distichum* L., Poaceae, Liliopsida) 60 (1996) 121

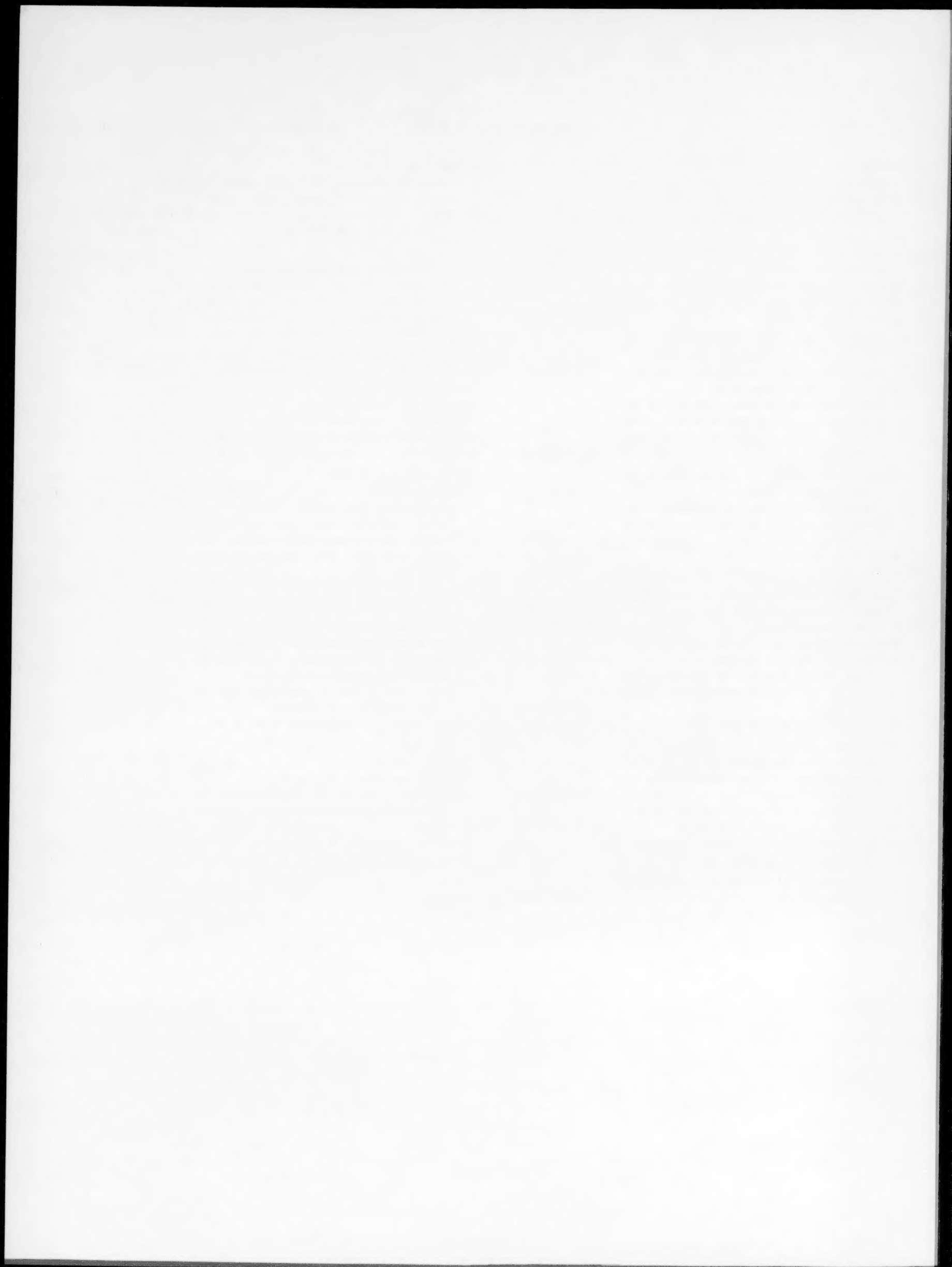
- Migliore, L., G. Brambilla, S. Cozzolino and L. Gaudio
Effect on plants of sulphadimethoxine used in intensive farming (*Panicum miliaceum*, *Pisum sativum* and *Zea mays*) 52 (1995) 103
- Mignanego, L., see Ainsworth, N. et al.
- Milberg, P., see Wallin, E. et al.
- Miller, A.C.E., G.W. Cussans and R.J. Froud-Williams
The fate of morphologically different populations of *Arrhenatherum elatius* transplanted into arable and semi-natural habitats 60 (1996) 107
- Miller, B.K., see Gillespie, A.R. et al.
- Miller, R.H., see Tanigoshi, L.K. et al.
- Miller, R.W., M.L. Al-Khazraji, D.R. Sisson and D.T. Gardiner
Alfalfa growth and absorption of cadmium and zinc from soils amended with sewage sludge 53 (1995) 179
- Miller, R.W., see Gardiner, D.T. et al.
- Miller, T.D., see Tanigoshi, L.K. et al.
- Millington, S., see Stopes, C. et al.
- Milne, W.M.
Use of trap plants as a means of measuring the activity of cereal aphid parasitoids in the field 52 (1995) 31
- Mineau, P., see McLaughlin, A. et al.
- Minh, L.Q., T.P. Tuong, M.E.F. van Mensvoort and J. Bouma
Contamination of surface water as affected by land use in acid sulfate soils in the Mekong River Delta, Vietnam 61 (1997) 19
- Mishanec, J.J., see Hoffmann, M.P. et al.
- Mohammed, A.E., C.J. Stigter and H.S. Adam
On shelterbelt design for combating sand invasion 57 (1996) 81
- Moir, J.O., see Lessa, A.S.N. et al.
- Montagnini, F., see Byard, R. et al.
- Monzon, A. and R. Azcón
Relevance of mycorrhizal fungal origin and host plant genotype to inducing growth and nutrient uptake in *Medicago* species 60 (1996) 9
- Moore, S., see Cameron, K.C. et al.
- Moral, R., see Pedreño, J.N. et al.
- Moran, V.C., see Hoffmann, J.H. et al.
- Morot-Gaudry, J.F., see Quilleré, I. et al.
- Morshäuser, T., see Schroth, G. et al.
- Mortensen, J.V., see Eriksen, J. et al.
- Mortensen, L.M., see Sæbø, A. et al.
- Mowat, D.J. and S. Clawson
Natural control of the Small Ermine Moth *Yponomeuta padella* (L.) 52 (1995) 93
- Mulchi, C.L., see Pausch, R.C. et al.
- Murillo, J.M., F. Cabrera, R. López and P. Martín-Olmedo
Testing low-quality urban composts for agriculture: germination and seedling performance of plants 54 (1995) 127
- Muthukumar, T., K. Udaiyan, A. Karthikeyan and S. Manian
Influence of native endomycorrhiza, soil flooding and nurse plant on mycorrhizal status and growth of purple nutsedge (*Cyperus rotundus* L.) 61 (1997) 51
- Nakamura, K., see Lane, S.J. et al.
- Nguyen, M.L. and R.J. Haynes
Energy and labour efficiency for three pairs of conventional and alternative mixed cropping (pasture-arable) farms in Canterbury, New Zealand 52 (1995) 163
- Nguyen, M.L., R.J. Haynes and K.M. Goh
Nutrient budgets and status in three pairs of conventional and alternative mixed cropping farms in Canterbury, New Zealand . . . 52 (1995) 149
- Nicholson, K.S., see Wardle, D.A. et al.
- Nicol, H.I., see Penrose, L.J. et al.
- Niehoff, B. and H.-M. Poehling
Population dynamics of aphids and syrphid larvae in winter wheat treated with different rates of pirimicarb 52 (1995) 51
- Nielsen, J.D., see Eriksen, J. et al.
- Nielsen, N.E., see Eriksen, J. et al.
- Nilsson, I., see Iakimenko, O. et al.
- Nilsson, I., see Sadovnikova, L. et al.
- Noonan, M.J., see Cameron, K.C. et al.
- Norman, W.R.
Indigenous community-managed irrigation in Sahelian West Africa 61 (1997) 83
- Nouchi, I., see Kobayashi, K. et al.
- Novak, J.M., D.W. Watts and P.G. Hunt
Long-term tillage effects on atrazine and fluometuron sorption in Coastal Plain soils . 60 (1996) 165
- Noy-Meir, I., see Henkin, Z. et al.
- Ntonifor, N.N., L.E.N. Jackai and F.K. Ewete
Influence of host plant abundance and insect diet on the host selection behavior of *Maruca testulalis* Geyer (Lepidoptera: Pyralidae) and *Riptortus dentipes* Fab (Hemiptera: Alydidae) 60 (1996) 71
- Nweke, F.I., see Ugwu, B.O. et al.
- Obrycki, J.J., see Lewis, L.C. et al.
- Ofuya, T.I.
Studies on the capability of *Cheilomenes lunata* (Fabricius) (Coleoptera: Coccinellidae) to prey on the cowpea aphid, *Aphis craccivora* Koch (Homoptera: Aphididae) in Nigeria 52 (1995) 35
- Okada, M., see Kobayashi, K. et al.
- Olasantan, F.O., H.C. Ezumah and E.O. Lucas
Effects of intercropping with maize on the micro-environment, growth and yield of cassava 57 (1996) 149
- Olckers, T. and P.E. Hulley
Importance of preintroduction surveys in the biological control of *Solanum* weeds in South Africa 52 (1995) 179
- Oldenbroek, J.K., see de Wit, J. et al.

- Oldham, R.S., D.M. Latham, D. Hilton-Brown, M. Towns, A.S. Cooke and A. Burn
The effect of ammonium nitrate fertiliser on frog (*Rana temporaria*) survival. 61 (1997) 69
- Orfanedes, M.S., *see* Hoffmann, M.P. et al.
- Orlov, D., *see* Iakimenko, O. et al.
- Orlov, D., *see* Sadovnikova, L. et al.
- Orozco, M.O., *see* Guillemín, J.P. et al.
- Osborn, R., *see* Samways, M.J. et al.
- Otabbong, E., *see* Iakimenko, O. et al.
- Otabbong, E., *see* Sadovnikova, L. et al.
- Page, F., *see* Brough, E.J. et al.
- Pal, M., A. Sharma, Y.P. Abrol and U.K. Sen-gupta
Exclusion of UV-B radiation from normal solar spectrum on the growth of mung bean and maize. 61 (1997) 29
- Palm, C.A., M.J. Swift and P.L. Woomer
Soil biological dynamics in slash-and-burn agriculture 58 (1996) 61
- Parish, T., *see* Sparks, T.H. et al.
- Park, J. and S.H. Cousins
Soil biological health and agro-ecological change 56 (1995) 137
- Pausch, R.C., C.L. Mulchi, E.H. Lee and J.J. Meisinger
Use of ^{13}C and ^{15}N isotopes to investigate O_3 effects on C and N metabolism in soybeans. Part II. Nitrogen uptake, fixation, and partitioning. 60 (1996) 61
- Pausch, R.C., C.L. Mulchi, E.H. Lee, I.N. Forseth and L.H. Slaughter
Use of ^{13}C and ^{15}N isotopes to investigate O_3 effects on C and N metabolism in soybeans. Part I. C fixation and translocation. 59 (1996) 69
- Pedreño, J.N., I. Gómez, R. Moral and J. Mataix
Improving the agricultural value of a semi-arid soil by addition of sewage sludge and almond residue 58 (1996) 115
- Pedreño, J.N., R. Moral, I. Gómez and J. Mataix
Reducing nitrogen losses by decreasing mineral fertilisation in horticultural crops of eastern Spain 59 (1996) 217
- Penrose, L.J.
Fungicide use reduction in apple production—potentials or pipe dreams? 53 (1995) 231
- Penrose, L.J., C.C. Bower and H.I. Nicol
Variability in pesticide use as a factor in measuring and bringing about reduction in pesticide usage in apple orchards 59 (1996) 97
- Pera, A., *see* Valdrighi, M.M. et al.
- Perret, S., R. Michellon, J. Boyer and J. Tassin
Soil rehabilitation and erosion control through agro-ecological practices on Reunion Island (French Overseas Territory, Indian Ocean). 59 (1996) 149
- Persson, J., *see* Iakimenko, O. et al.
- Persson, J., *see* Sadovnikova, L. et al.
- Petit, S., *see* Charrier, S. et al.
- Petzoldt, C.H., *see* Hoffmann, M.P. et al.
- Phelan, P.L., J.F. Mason and B.R. Stinner
Soil-fertility management and host preference by European corn borer, *Ostrinia nubilalis* (Hübner), on *Zea mays* L.: A comparison of organic and conventional chemical farming 56 (1995) 1
- Pike, K.S., *see* Tanigoshi, L.K. et al.
- Pimentel, D., *see* Kleinman, P.J.A. et al.
- Piper, J.K., M.K. Handley and P.A. Kulakow
Incidence and severity of viral disease symptoms on eastern gamagrass within monoculture and polycultures 59 (1996) 139
- Pleijel, H., G.P. Karlsson, E. Sild, H. Danielsson, L. Skärby and G. Selldén
Exposure of a grass-clover mixture to ozone in open-top chambers—effects on yield, quality and botanical composition 59 (1996) 55
- Poehling, H.-M., *see* Hasken, K.-H. et al.
- Poehling, H.-M., *see* Niehoff, B. et al.
- Poehling, H.-M., *see* Tenhumberg, B. et al.
- Poidy, N., *see* Schroth, G. et al.
- Polgár, L.A., B. Darvas and W. Völkl
Induction of dormancy in aphid parasitoids: implications for enhancing their field effectiveness 52 (1995) 19
- Pordomingo, A.J., *see* Viglizzo, E.F. et al.
- Prokopy, R.J., J.L. Mason, M. Christie and S.E. Wright
Arthropod pest and natural enemy abundance under second-level versus first-level integrated pest management practices in apple orchards: a 4-year study 57 (1996) 35
- Puustinen, M., *see* Yli-Halla, M. et al.
- Quilleré, I., L. Roux, D. Marie, Y. Roux, F. Gosse and J.F. Morot-Gaudry
An artificial productive ecosystem based on a fish/bacteria/plant association. 2. Performance. 53 (1995) 19
- Rabasse, J.M., *see* Messing, R.H. et al.
- Rafarel, C.R., *see* Ashenden, T.W. et al.
- Rahman, A., *see* Wardle, D.A. et al.
- Rao, A.V., *see* Tarafdar, J.C. et al.
- Rao, M.R., *see* Alegre, J.C. et al.
- Rate, A.W., *see* Cameron, K.C. et al.
- Reddy, K.R., E.G. Flaig and D.A. Graetz
Phosphorus storage capacity of uplands, wetlands and streams of the Lake Okechobee Watershed, Florida 59 (1996) 203
- Reddy, K.R., H.F. Hodges and J.M. McKinion
Carbon dioxide and temperature effects on pima cotton growth. 54 (1995) 17
- Reddy, K.R., *see* Reddy, V.R. et al.
- Reddy, V.R., K.R. Reddy and B. Acock
Carbon dioxide and temperature interactions on stem extension, node initiation, and fruiting in cotton 55 (1995) 17

- Rew, L.J., R.J. Froud-Williams and N.D. Boatman
Dispersal of *Bromus sterilis* and *Anthriscus sylvestris* seed within arable field margins 59 (1996) 107
- Rhodes, M., see Anderson, M.D. et al.
- Riffaldi, R., see Saviozzi, A. et al.
- Roberto, Z.E., see Viglizzo, E.F. et al.
- Ronday, R., A.J. Zweers and M. Maaskant
Efficiency of the Carbo-Flo process to purify process water contaminated with agricultural pesticides 54 (1995) 45
- Rose, S.C., see Williams, J.R. et al.
- Roux, L., see Quilleré, I. et al.
- Roux, Y., see Quilleré, I. et al.
- Ruiz-Lozano, J.M. and R. Azcón
Mycorrhizal colonization and drought stress as factors affecting nitrate reductase activity in lettuce plants 60 (1996) 175
- Sadovnikova, L., E. Otabbong, O. Iakimenko, I. Nilsson, J. Persson and D. Orlov
Dynamic transformation of sewage sludge and farmyard manure components. 2. Copper, lead and cadmium forms in incubated soils 58 (1996) 127
- Sadovnikova, L., see Iakimenko, O. et al.
- Sæbø, A. and L.M. Mortensen
Growth and regrowth of *Phleum pratense*, *Lolium perenne*, *Trifolium repens* and *Trifolium pratense* at normal and elevated CO₂ concentration 55 (1995) 29
- Sæbø, A. and L.M. Mortensen
Growth, morphology and yield of wheat, barley and oats grown at elevated atmospheric CO₂ concentration in a cool, maritime climate 57 (1996) 9
- Samways, M.J., P.M. Caldwell and R. Osborn
Ground-living invertebrate assemblages in native, planted and invasive vegetation in South Africa 59 (1996) 19
- Sanchez, P.A.
Introduction 58 (1996) 1
- Sarkar, A.
Energy-use patterns in sub-tropical rice-wheat cropping under short term application of crop residue and fertilizer 61 (1997) 59
- Saville, N.M., W.E. Dramstad, G.L.A. Fry and S.A. Corbet
Bumblebee movement in a fragmented agricultural landscape 61 (1997) 145
- Saviozzi, A., R. Levi-Minzi, R. Riffaldi and G. Vanni
Laboratory studies on the application of wheat straw and pig slurry to soil and the resulting environmental implications 61 (1997) 35
- Schenone, G., see Ainsworth, N. et al.
- Scholefield, D. and A.C. Stone
Nutrient losses in runoff water following application of different fertilisers to grassland cut for silage 55 (1995) 181
- Scholtz, C.H., see Krüger, K. et al.
- Schroth, G. and J. Lehmann
Contrasting effects of roots and mulch from three agroforestry tree species on yields of alley cropped maize 54 (1995) 89
- Schroth, G., N. Poidy, T. Morshäuser and W. Zech
Effects of different methods of soil tillage and biomass application on crop yields and soil properties in agroforestry with high tree competition 52 (1995) 129
- Seligman, N., see Henkin, Z. et al.
- Selldén, G., see Pleijel, H. et al.
- Sengupta, U.K., see Pal, M. et al.
- Serrano, L., see Guimerà, J. et al.
- Sharma, A., see Pal, M. et al.
- Shennan, C., see Letourneau, D.K. et al.
- Shepherd, M.A.
Factors affecting nitrate leaching from sewage sludges applied to a sandy soil in arable agriculture 58 (1996) 171
- Sild, E., see Pleijel, H. et al.
- Sims, R.E.H.
Utilisation of waste organic matter 58 (1996) 91
- Sisson, D.R., see Gardiner, D.T. et al.
- Sisson, D.R., see Miller, R.W. et al.
- Skärby, L., see Pleijel, H. et al.
- Skarratt, B., see McFadyen, R.C. et al.
- Slaughter, L.H., see Pausch, R.C. et al.
- Smit, B., see Spaling, H. et al.
- Smith, C.M., see Cooper, A.B. et al.
- Smith, G.C., see Inglis, I.R. et al.
- Smith, J., see Weber, G. et al.
- Smith, M.J., see Cooper, A.B. et al.
- Smith, N.P., see Cameron, K.C. et al.
- Sotherton, N.W., see Longley, M. et al.
- Spaling, H.
Analyzing cumulative environmental effects of agricultural land drainage in southern Ontario, Canada 53 (1995) 279
- Spaling, H. and B. Smit
A conceptual model of cumulative environmental effects of agricultural land drainage 53 (1995) 99
- Sparks, T.H., T. Parish and S.A. Hinsley
Breeding birds in field boundaries in an agricultural landscape 60 (1996) 1
- Srivastava, S., see Chakravarty, B. et al.
- Stein, A., see Sylla, M. et al.
- Stigter, C.J., see Mohammed, A.E. et al.
- Stinner, B.R., see Phelan, P.L. et al.
- Stone, A.C., see Scholefield, D. et al.
- Stonehouse, D.P., see Clements, D.R. et al.
- Stoop, W.A., see Meertens, H.C.C. et al.
- Stopes, C., S. Millington and L. Woodward
Dry matter and nitrogen accumulation by three leguminous green manure species and the yield of a following wheat crop in an organic production system 57 (1996) 189
- Struwe, S., see Tinker, P.B. et al.

- Sumberg, J.E., *see* Thomas, D. et al.
- Sverdrup, H., P. Warfvinge, L. Blake and K. Goulding
Modelling recent and historic soil data from the Rothamsted Experimental Station, UK using SAFE. 53 (1995) 161
- Swanton, C.J., *see* Clements, D.R. et al.
- Swift, M.J., *see* Palm, C.A. et al.
- Sylla, M., A. Stein, N. van Breemen and L.O. Fresco
Spatial variability of soil salinity at different scales in the mangrove rice agro-ecosystem in West Africa 54 (1995) 1
- Tanigoshi, L.K., K.S. Pike, R.H. Miller, T.D. Miller and D. Allison
Search for, and release of, parasitoids for the biological control of Russian wheat aphid in Washington State (USA) 52 (1995) 25
- Tarafdar, J.C. and A.V. Rao
Mycorrhizal colonization and nutrient concentration of naturally grown plants on gypsum mine spoils in India 61 (1997) 13
- Tassin, J., *see* Perret, S. et al.
- Teague, W.R.
A research framework to achieve sustainable use of rangeland. 57 (1996) 91
- Teasdale, J., *see* Kelly, T.C. et al.
- Teng, P.S., *see* Finckh, M.R. et al.
- Tenhumberg, B. and H.-M. Poehling
Syrphids as natural enemies of cereal aphids in Germany: Aspects of their biology and efficacy in different years and regions. . . . 52 (1995) 39
- Tessier, S., *see* Chen, Y. et al.
- Thapa, G.B.
Land use, land management and environment in a subsistence mountain economy in Nepal 57 (1996) 57
- Theaker, A.J., N.D. Boatman and R.J. Froud-Williams
The effect of nitrogen fertiliser on the growth of *Bromus sterilis* in field boundary vegetation. 53 (1995) 185
- Thearle, R.J.P., *see* Inglis, I.R. et al.
- Thomas, D. and J.E. Sumberg
A review of the evaluation and use of tropical forage legumes in sub-Saharan Africa . . 54 (1995) 151
- Thomas, N., *see* Fujisaka, S. et al.
- Thomas, S.R., *see* Holland, J.M. et al.
- Tian, Z.X., *see* Zhang, W.L. et al.
- Tinker, P.B., J.S.I. Ingram and S. Struwe
Effects of slash-and-burn agriculture and deforestation on climate change 58 (1996) 13
- Tisdell, C.
Economic indicators to assess the sustainability of conservation farming projects: An evaluation. 57 (1996) 117
- Titi-Nwel, P., *see* Tonye, J. et al.
- Tonye, J. and P. Titi-Nwel
Agronomic and economic evaluation of methods of establishing alley cropping under a maize/groundnut intercrop system . . 56 (1995) 29
- Torres-Castillo, R., P. Llabrés-Luengo and J. Mata-Alvarez
Temperature effect on anaerobic digestion of bedding straw in a one phase system at different inoculum concentration 54 (1995) 55
- Towns, M., *see* Oldham, R.S. et al.
- Tsialtas, J.T., *see* Veresoglou, D.S. et al.
- Tuong, T.P., *see* Minh, L.Q. et al.
- Turtola, E., *see* Yli-Halla, M. et al.
- Udaiyan, K., *see* Edathil, T.T. et al.
- Udaiyan, K., *see* Muthukumar, T. et al.
- Ugwu, B.O. and F.I. Nweke
Determinants of cassava distribution in Nigeria 60 (1996) 139
- Valdrighi, M.M., A. Pera, M. Agnolucci, S. Frassinetti, D. Lunardi and G. Vallini
Effects of compost-derived humic acids on vegetable biomass production and microbial growth within a plant (*Cichorium intybus*)-soil system: a comparative study. 58 (1996) 133
- Vallini, G., *see* Valdrighi, M.M. et al.
- Van Berkum, P., *see* Ibekwe, A.M. et al.
- Van Breemen, N., *see* Sylla, M. et al.
- Van der Werf, H.M.G.
Assessing the impact of pesticides on the environment 60 (1996) 81
- Van Emden, H.F.
Host plant-Aphidophaga interactions 52 (1995) 3
- Van Keulen, H., *see* de Wit, J. et al.
- Van Mensvoort, M.E.F., *see* Minh, L.Q. et al.
- Vanni, G., *see* Saviozzi, A. et al.
- Van Ranst, E., *see* Wandahwa, P. et al.
- Van Zee, V., *see* Anderson, M.D. et al.
- Vereijken, P., *see* Hermans, C. et al.
- Veresoglou, D.S., J.T. Tsialtas, N. Barbayiannis and G.C. Zalidis
Caesium and strontium uptake by two pasture plant species grown in organic and inorganic soils 56 (1995) 37
- Verma, M. and M. Agrawal
Alleviation of injurious effects of sulphur dioxide on soybean by modifying NPK nutrients 57 (1996) 49
- Vietto, L., *see* Ainsworth, N. et al.
- Viglizzo, E.F., Z.E. Roberto, M.C. Filippin and A.J. Pordomingo
Climate variability and agroecological change in the Central Pampas of Argentina . 55 (1995) 7
- Völkl, W., *see* Polgár, L.A. et al.

- Vosátka, M.
Influence of inoculation with arbuscular mycorrhizal fungi on the growth and mycorrhizal infection of transplanted onion 53 (1995) 151
- Vosti, S.A. and J. Witcover
Slash-and-burn agriculture — household perspectives 58 (1996) 23
- Wagoner, P., *see* Douds, Jr., D.D. et al.
- Wajid Khan, M., *see* Khan, M.R. et al.
- Wallin, E. and P. Milberg
Effect of bean geese (*Anser fabalis*) grazing on winter wheat during migration stopover in southern Sweden. 54 (1995) 103
- Wandahwa, P. and E. van Ranst
Qualitative land suitability assessment for pyrethrum cultivation in west Kenya based upon computer-captured expert knowledge and GIS. 56 (1996) 187
- Wang, D., G. Alfthan, A. Aro, A. Mäkelä, S. Knuuttila and T. Hammar
The impact of selenium supplemented fertilization on selenium in lake ecosystems in Finland 54 (1995) 137
- Wang, S.M., *see* Ellis, E.C. et al.
- Wardle, D.A., K.S. Nicholson and A. Rahman
Ecological effects of the invasive weed species *Senecio jacobaea* L. (ragwort) in a New Zealand pasture 56 (1995) 19
- Warfvinge, P., *see* Sverdrup, H. et al.
- Warman, P.R. and K.A. Havard
Yield, vitamin and mineral contents of organically and conventionally grown carrots and cabbage 61 (1997) 155
- Watts, D.W., *see* Novak, J.M. et al.
- Weber, G., J. Smith and M.V. Manyong
System dynamics and the definition of research domains for the northern Guinea savanna of West Africa. 57 (1996) 133
- Weigel, H.J., *see* Manderscheid, R. et al.
- Weise, S.F., *see* Clements, D.R. et al.
- Williams, J.R., S.C. Rose and G.L. Harris
The impact on hydrology and water quality of woodland and set-aside establishment on lowland clay soils 54 (1995) 215
- Wilson, S.A.
Are mediterranean plant species likely to have a distinctive response to SO₂ pollution? 55 (1995) 71
- Winter, W.H., *see* Ash, A.J. et al.
- Witcover, J., *see* Vosti, S.A. et al.
- Witt, A.B.R., R.M. Little and T.M. Crowe
The effectiveness of helmeted guineafowl *Numida meleagris* (Linnaeus 1766) in controlling the banded fruit weevil *Phlyctinus callosus* (Schönherr 1826), and their impact on other invertebrates in apple orchards in the Western Cape Province, South Africa . . 55 (1995) 169
- Woodward, L., *see* Stopes, C. et al.
- Woomer, P.L., *see* Bekunda, M.A. et al.
- Woomer, P.L., *see* Palm, C.A. et al.
- Worner, S.P., *see* Mauremooto, J.R. et al.
- Wratten, S.D., *see* Mauremooto, J.R. et al.
- Wright, S.E., *see* Prokopy, R.J. et al.
- Wyland, L.J., L.E. Jackson, W.E. Chaney, K. Klonsky, S.T. Koike and B. Kimple
Winter cover crops in a vegetable cropping system: Impacts on nitrate leaching, soil water, crop yield, pests and management costs 59 (1996) 1
- Wyss, E.
The effects of artificial weed strips on diversity and abundance of the arthropod fauna in a Swiss experimental apple orchard. . . . 60 (1996) 47
- Yli-Halla, M., H. Hartikainen, P. Ekholm, E. Turtola, M. Puustinen and K. Kallio
Assessment of soluble phosphorus load in surface runoff by soil analyses. 56 (1995) 53
- Young, D.H., *see* Hoffmann, M.P. et al.
- Zalidis, G.C., *see* Veresoglou, D.S. et al.
- Zech, W., *see* Schroth, G. et al.
- Zhang, N., *see* Zhang, W.L. et al.
- Zhang, W.L., Z.X. Tian, N. Zhang and X.Q. Li
Nitrate pollution of groundwater in northern China 59 (1996) 223
- Zwart, D., *see* de Wit, J. et al.
- Zweers, A.J., *see* Ronday, R. et al.



Subject Index, Volumes 52–61

ALES

Qualitative land suitability assessment for pyrethrum cultivation in west Kenya based upon computer-captured expert knowledge and GIS, 56 (1996) 187

AM fungi

Mycorrhizal colonization and nutrient concentration of naturally grown plants on gypsum mine spoils in India, 61 (1997) 13

AOT40

Exposure of a grass-clover mixture to ozone in open-top chambers—effects on yield, quality and botanical composition, 59 (1996) 55

Abakaliki

Evaluating baseline data for copper, manganese, nickel and zinc in rice, yam, cassava and guinea grass from cultivated soils in Nigeria, 53 (1995) 47

Abax parallelepipedus

Movements of *Abax parallelepipedus* (Coleoptera, Carabidae) in woody habitats of a hedgerow network landscape: a radio-tracing study, 61 (1997) 133

Abscission

Carbon dioxide and temperature effects on pima cotton growth, 54 (1995) 17

Abundance

The effects of artificial weed strips on diversity and abundance of the arthropod fauna in a Swiss experimental apple orchard, 60 (1996) 47

Acid mist

Interactive effects of gaseous air pollutants and acid mist on two major pasture grasses, 57 (1996) 1

Acid rain

Effects of fluoride and acidity on early plant growth, 52 (1995) 205

Acid sulfate soil

Contamination of surface water as affected by land use in acid sulfate soils in the Mekong River Delta, Vietnam, 61 (1997) 19

Actinomycetes

Interaction of soil microflora with the bioherbicide phosphinothricin, 54 (1995) 165

Adaptive management

A research framework to achieve sustainable use of rangeland, 57 (1996) 91

Adjacent ecosystems

Movements of Tortricid moths (Lep. Tortricidae) between apple orchards and adjacent ecosystems, 55 (1995) 37

Afforestation

Ground-living invertebrate assemblages in native, planted and invasive vegetation in South Africa, 59 (1996) 19

Africa

Potential distribution of *Chromolaena odorata* (siam weed) in Australia, Africa and Oceania, 59 (1996) 89

African traditional cropping system

Effect of soils, cropping system and host phenotype on incidence and severity of *Striga gesnerioides* on cowpea in West Africa, 53 (1995) 253

Aggregates

Soil carbohydrates in aggrading and degrading agroecosystems: influences of fungi and aggregates, 54 (1995) 77

Agricultural adaptation

Modelling the effect of shelterbelts on maize productivity under climate change: An application of the EPIC model, 61 (1997) 163

Agricultural landscape

Movements of *Abax parallelepipedus* (Coleoptera, Carabidae) in woody habitats of a hedgerow network landscape: a radio-tracing study, 61 (1997) 133

Agricultural pests

The effectiveness of helmeted guineafowl *Numida meleagris* (Linnaeus 1766) in controlling the banded fruit weevil *Phlyctinus callosus* (Schönherr 1826), and their impact on other invertebrates in apple orchards in the Western Cape Province, South Africa, 55 (1995) 169

Agricultural wastes

Temperature effect on anaerobic digestion of bedding straw in a one phase system at different inoculum concentration, 54 (1995) 55

Agriculture

A conceptual model of cumulative environmental effects of agricultural land drainage, 53 (1995) 99

Analyzing cumulative environmental effects of agricultural land drainage in southern Ontario, Canada, 53 (1995) 279

Effect on plants of sulphadimethoxine used in intensive farming (*Panicum miliaceum*, *Pisum sativum* and *Zea mays*), 52 (1995) 103

Impacts of agricultural herbicide use on terrestrial wildlife in temperate landscapes: A review with special reference to North America, 52 (1995) 67

Prospects and problems pertaining to the management of arbuscular mycorrhizae in agriculture, 60 (1996) 197

Agriculture history

Sustainable Traditional Agriculture in the Tai Lake Region of China, 61 (1997) 177

Agriculture, alternative

Energy and labour efficiency for three pairs of conventional and alternative mixed cropping (pasture-arable) farms in Canterbury, New Zealand, 52 (1995) 163

Agriculture, conventional

Energy and labour efficiency for three pairs of conventional and alternative mixed cropping (pasture-arable) farms in Canterbury, New Zealand, 52 (1995) 163

Agriculture, slash and burn

The ecological sustainability of slash-and-burn agriculture, 52 (1995) 235

Agriculture, sustainable

The ecological sustainability of slash-and-burn agriculture, 52 (1995) 235

Agro-ecological criteria

Criteria for sustainable livestock production: a proposal for implementation, 53 (1995) 219

Agro-ecosystems

Hill-slope agro-ecosystems and their implications on environmental systems in rural southwestern Nigeria, 61 (1997) 97

Soil biological health and agro-ecological change, 56 (1995) 137

Agroecological change

Climate variability and agroecological change in the Central Pampas of Argentina, 55 (1995) 7

Agroforestry

Development pathways toward sustainable systems following slash-and-burn, 58 (1996) 75

Dynamics of soil physical properties under alternative systems to slash-and-burn, 58 (1996) 39

Historical land use evolution in a tropical acid upland agro-ecosystem, 53 (1995) 83

Agronomic practices

Prospects and problems pertaining to the management of arbuscular mycorrhizae in agriculture, 60 (1996) 197

Air pollutants

Interactive effects of gaseous air pollutants and acid mist on two major pasture grasses, 57 (1996) 1

Alfisol

Inoculation and phosphorus effects on *Desmodium intortum* and *Sesbania sesban* in the Ethiopian highlands, 56 (1996) 165

Alley cropping

Agronomic and economic evaluation of methods of establishing alley cropping under a maize/groundnut intercrop system, 56 (1995) 29

Contrasting effects of roots and mulch from three agroforestry tree species on yields of alley cropped maize, 54 (1995) 89

Dynamics of soil physical properties under alternative systems to slash-and-burn, 58 (1996) 39

Soil and water conservation by contour hedging in the humid tropics of Peru, 57 (1996) 17

Almond residue

Improving the agricultural value of a semi-arid soil by addition of sewage sludge and almond residue, 58 (1996) 115

Alternative prey

The effects of artificial weed strips on diversity and abundance of the arthropod fauna in a Swiss experimental apple orchard, 60 (1996) 47

Aman rice

Population pressure, environmental constraints and agricultural change in Bangladesh: examples from three agroecosystems, 55 (1995) 95

America, United States of

Effects of ground cover on tree survival and growth in filter strips of the Cornbelt Region of the midwestern US, 53 (1995) 263

Ammonia

Effects of ammonia and root-knot nematode on tomato, 53 (1995) 71

Ammonium nitrate

The effect of ammonium nitrate fertiliser on frog (*Rana temporaria*) survival, 61 (1997) 69

Anaerobic digestion

Temperature effect on anaerobic digestion of bedding straw in a one phase system at different inoculum concentration, 54 (1995) 55

Anas penelope

The effect of night grazing by wigeon (*Anas penelope*) on winter-sown wheat in Japan and the efficacy of black plastic flags as scaring devices, 59 (1996) 81

Andisol

Soil rehabilitation and erosion control through agro-ecological practices on Reunion Island (French Overseas Territory, Indian Ocean), 59 (1996) 149

Animal wastewater treatment

Constructed wetlands to treat wastewater from dairy and swine operations: a review, 58 (1996) 97

Annual species

Phosphate fertilization primes production of rangeland on brown rendzina soils in the Galilee, Israel, 59 (1996) 43

Anser fabalis

Effect of bean geese (*Anser fabalis*) grazing on winter wheat during migration stopover in southern Sweden, 54 (1995) 103

Aphid predators

Effects of different intensities of fertilisers and pesticides on aphids and aphid predators in winter wheat, 52 (1995) 45

Aphidius colemani

Oviposition behaviour of the polyphagous aphid parasitoid *Aphidius colemani* Viereck (Hymenoptera: Aphidiidae), 52 (1995) 13

Aphid vector

Incidence and severity of viral disease symptoms on eastern gamagrass within monoculture and polycultures, 59 (1996) 139

Aphids

Some effects of polyphagous predators on an outbreak of cereal aphid (*Sitobion avenae* F.) and orange wheat blossom midge (*Sitodiplosis mosellana* Géhin), 59 (1996) 181

Aphids, cereal

Effects of different intensities of fertilisers and pesticides on aphids and aphid predators in winter wheat, 52 (1995) 45

Population dynamics of aphids and syrphid larvae in winter wheat treated with different rates of pirimicarb, 52 (1995) 51

Aphis craccivora

Studies on the capability of *Cheilomenes lunata* (Fabricius) (Coleoptera: Coccinellidae) to prey on the cowpea aphid, *Aphis craccivora* Koch (Homoptera: Aphididae) in Nigeria, 52 (1995) 35

Aphis gossypii

Oviposition behaviour of the polyphagous aphid parasitoid *Aphidius colemani* Viereck (Hymenoptera: Aphidiidae), 52 (1995) 13

Apple

Arthropod pest and natural enemy abundance under second-level versus first-level integrated pest management practices in apple orchards: a 4-year study, 57 (1996) 35

Fungicide use reduction in apple production—potentials or pipe dreams?, 53 (1995) 231

Integrated mite control in apples in Queensland, Australia, 60 (1996) 129

Variability in pesticide use as a factor in measuring and bringing about reduction in pesticide usage in apple orchards, 59 (1996) 97

Apple orchard

Movements of Tortricid moths (Lep. Tortricidae) between apple orchards and adjacent ecosystems, 55 (1995) 37

The effects of artificial weed strips on diversity and abundance of the arthropod fauna in a Swiss experimental apple orchard, 60 (1996) 47

Arbuscular mycorrhiza

Influence of native endomycorrhiza, soil flooding and nurse plant on mycorrhizal status and growth of purple nutsedge (*Cyperus rotundus* L.), 61 (1997) 51

Influence of phosphate fertilization on fungal alkaline phosphatase and succinate dehydrogenase activities in arbuscular mycorrhiza of soybean and pineapple, 53 (1995) 63

Mycorrhizal colonization and drought stress as factors affecting nitrate reductase activity in lettuce plants, 60 (1996) 175

Prospects and problems pertaining to the management of arbuscular mycorrhizae in agriculture, 60 (1996) 197

Relevance of mycorrhizal fungal origin and host plant genotype to inducing growth and nutrient uptake in *Medicago* species, 60 (1996) 9

Arbuscular mycorrhizal fungi (AMF)

Influence of inoculation with arbuscular mycorrhizal fungi on the growth and mycorrhizal infection of transplanted onion, 53 (1995) 151

Architecture

Fencerow and forest edge architecture in eastern Ontario farmland, 59 (1996) 159

Argentina Pampas

Climate variability and agroecological change in the Central Pampas of Argentina, 55 (1995) 7

Arid environment

Mycorrhizal colonization and nutrient concentration of naturally grown plants on gypsum mine spoils in India, 61 (1997) 13

Arthropods

The influence of post-flowering pests on cowpea seed yield with particular reference to damage by Heteroptera in southern Benin, 53 (1995) 137

Artificial diets

The effect of ozone, nitrogen dioxide or nitric oxide fumigation of cereals on the rose grain aphid *Metopolophium dirhodum*, 54 (1995) 187

Ashes

Fine root mineralization, soil organic matter and exchangeable cation dynamics in slash and burn agriculture in the semi-arid northeast of Brazil, 59 (1996) 191

Asia

Potential distribution of *Chromolaena odorata* (siam weed) in Australia, Africa and Oceania, 59 (1996) 89

Assessment methods

Assessing the impact of pesticides on the environment, 60 (1996) 81

Assessment systems

Assessing the relative environmental impacts of agricultural pesticides: the quest for a holistic method, 55 (1995) 153

Atmospheric pollution

Alternatives to slash-and-burn: a global imperative, 58 (1996) 3

Atrazine

Long-term tillage effects on atrazine and fluometuron sorption in Coastal Plain soils, 60 (1996) 165

Aus rice

Population pressure, environmental constraints and agricultural change in Bangladesh: examples from three agroecosystems, 55 (1995) 95

Australia

How land condition alters plant-animal relationships in Australia's tropical rangelands, 56 (1995) 77

Integrated mite control in apples in Queensland, Australia, 60 (1996) 129

Potential distribution of *Chromolaena odorata* (siam weed) in Australia, Africa and Oceania, 59 (1996) 89

Seasonal dung beetle activity and dung dispersal in selected South African habitats: implications for pasture improvement in Australia, 58 (1996) 157

Autoctone endophytes

Relevance of mycorrhizal fungal origin and host plant genotype to inducing growth and nutrient uptake in *Medicago* species, 60 (1996) 9

Available Cu, Pb, Cd

Dynamic transformation of sewage sludge and farmyard manure components. 2. Copper, lead and cadmium forms in incubated soils, 58 (1996) 127

Avena sterilis

The Mediterranean grazing ecosystems of the Golan Heights, 54 (1995) 67

Avermectins

Lethal and sublethal effects of ivermectin on the dung-breeding beetles *Euoniticellus intermedius* (Reiche) and *Onitis alexis* Klug (Coleoptera, Scarabaeidae), 61 (1997) 123

Avifauna

Population trends in selected species of farmland birds in relation to recent developments in agriculture in the St. Lawrence Valley, 57 (1996) 103

BBS

Population trends in selected species of farmland birds in relation to recent developments in agriculture in the St. Lawrence Valley, 57 (1996) 103

Bacillus thuringiensis

Aptness of insecticides (*Bacillus thuringiensis* and carbofuran) with endophytic *Beauveria bassiana*, in suppressing larval populations of the European corn borer, 57 (1996) 27

Bacteria

Interaction of soil microflora with the bioherbicide phosphinothricin, 54 (1995) 165

Banana-based cropping

Organic resource management in banana-based cropping systems of the Lake Victoria Basin, Uganda, 59 (1996) 171

Banded fruit weevil

The effectiveness of helmeted guineafowl *Numida meleagris* (Linnaeus 1766) in controlling the banded fruit weevil *Phlyctinus callosus* (Schönherr 1826), and their impact on other invertebrates in apple orchards in the Western Cape Province, South Africa, 55 (1995) 169

Bangladesh Agriculture

Population pressure, environmental constraints and agricultural change in Bangladesh: examples from three agroecosystems, 55 (1995) 95

Barley

Effect of sulphadimethoxine contamination on barley (*Hordeum distichum* L., Poaceae, Liliopsida), 60 (1996) 121

Effects of repeated sewage sludge applications on plant accumulation of heavy metals, 55 (1995) 1

The effect of ozone, nitrogen dioxide or nitric oxide fumigation of cereals on the rose grain aphid *Metopolophium dirhodum*, 54 (1995) 187

Barren brome

Dispersal of *Bromus sterilis* and *Anthriscus sylvestris* seed within arable field margins, 59 (1996) 107

The effect of nitrogen fertiliser on the growth of *Bromus sterilis* in field boundary vegetation, 53 (1995) 185

Beauveria bassiana

Aptness of insecticides (*Bacillus thuringiensis* and carbofuran) with endophytic *Beauveria bassiana*, in suppressing larval populations of the European corn borer, 57 (1996) 27

Best management practice

Constructed wetlands to treat wastewater from dairy and swine operations: a review, 58 (1996) 97

Bioaccumulation

Effect of sulphadimethoxine contamination on barley (*Hordeum distichum* L., Poaceae, Liliopsida), 60 (1996) 121

Bioassays

Testing low-quality urban composts for agriculture: germination and seedling performance of plants, 54 (1995) 127

Biodiversity

Development pathways toward sustainable systems following slash-and-burn, 58 (1996) 75

Species biodiversity in changing agricultural landscapes: A case study in the Pays d'Auge, France, 55 (1995) 193

The impact of agricultural practices on biodiversity, 55 (1995) 201

Biogas

Temperature effect on anaerobic digestion of bedding straw in a one phase system at different inoculum concentration, 54 (1995) 55

Biological control

Importance of preintroduction surveys in the biological control of *Solanum* weeds in South Africa, 52 (1995) 179

Syrphids as natural enemies of cereal aphids in Germany: Aspects of their biology and efficacy in different years and regions, 52 (1995) 39

Biological health

Soil biological health and agro-ecological change, 56 (1995) 137

Biological pest control

The effectiveness of helmeted guineafowl *Numida meleagris* (Linnaeus 1766) in controlling the banded fruit weevil *Phlyctinus callosus* (Schönherr 1826), and their impact on other invertebrates in apple orchards in the Western Cape Province, South Africa, 55 (1995) 169

Biopesticides

Agriculture, environment and biotechnology, 53 (1995) 31

Biosolids

Enumeration and N₂ fixation potential of *Rhizobium leguminosarum* biovar *trifolii* grown in soil with varying pH values and heavy metal concentrations, 61 (1997) 103

Biotechnology

Agriculture, environment and biotechnology, 53 (1995) 31

Birds

Impacts of agricultural herbicide use on terrestrial wildlife in temperate landscapes: A review with special reference to North America, 52 (1995) 67

Black plastic flags

The effect of night grazing by wigeon (*Anas penelope*) on winter-sown wheat in Japan and the efficacy of black plastic flags as scaring devices, 59 (1996) 81

Boll growth

Carbon dioxide and temperature effects on pima cotton growth, 54 (1995) 17

Boro rice

Population pressure, environmental constraints and agricultural change in Bangladesh: examples from three agroecosystems, 55 (1995) 95

Brevicoryne brassicae

Abundance, growth rate and parasitism of *Brevicoryne brassicae* and *Myzus persicae* (Homoptera: Aphididae) on broccoli grown in living mulches, 52 (1995) 187

Broccoli

Winter cover crops in a vegetable cropping system: Impacts on nitrate leaching, soil water, crop yield, pests and management costs, 59 (1996) 1

Buffer strips

Effects of riparian set-aside on soil characteristics in an agricultural landscape: Implications for nutrient transport and retention, 55 (1995) 61

Bulbous

The fate of morphologically different populations of *Arrhenatherum elatius* transplanted into arable and semi-natural habitats, 60 (1996) 107

Bumblebees

Bumblebee movement in a fragmented agricultural landscape, 61 (1997) 145

Foraging activity of bumblebees (*Bombus*) in relation to flower resources on arable land, 53 (1995) 123

Butterflies

Factors determining the effects of pesticides upon butterflies inhabiting arable farmland, 61 (1997) 1

Bypass flow

Field monitoring of nitrate leaching and water flow in a structured clay soil, 52 (1995) 251

- ¹³C**
Use of ¹³C and ¹⁵N isotopes to investigate O₃ effects on C and N metabolism in soybeans. Part I. C fixation and translocation, 59 (1996) 69
- Cabbage**
Yield, vitamin and mineral contents of organically and conventionally grown carrots and cabbage, 61 (1997) 155
- Cadmium**
Effect of cadmium and zinc interaction on metal uptake and regeneration of tolerant plants in linseed, 61 (1997) 45

Effects of repeated sewage sludge applications on plant accumulation of heavy metals, 55 (1995) 1
- Calcareous soil**
Improving the agricultural value of a semi-arid soil by addition of sewage sludge and almond residue, 58 (1996) 115

Reducing nitrogen losses by decreasing mineral fertilisation in horticultural crops of eastern Spain, 59 (1996) 217
- Calcium**
Caesium and strontium uptake by two pasture plant species grown in organic and inorganic soils, 56 (1995) 37
- Calliandra calothyrsus***
Contrasting effects of roots and mulch from three agroforestry tree species on yields of alley cropped maize, 54 (1995) 89
- Canada**
Analyzing cumulative environmental effects of agricultural land drainage in southern Ontario, Canada, 53 (1995) 279
- Canonical discriminant analysis**
Effects of soil management on crop nitrogen and insect damage in organic vs. conventional tomato fields, 57 (1996) 179
- Carabid**
Permeability of hedgerows to predatory carabid beetles, 52 (1995) 141
- Carbo-Flo purification process**
Efficiency of the Carbo-Flo process to purify process water contaminated with agricultural pesticides, 54 (1995) 45
- Carbofuran**
Aptness of insecticides (*Bacillus thuringiensis* and carbofuran) with endophytic *Beauveria bassiana*, in suppressing larval populations of the European corn borer, 57 (1996) 27
- Carbohydrates**
Soil carbohydrates in aggrading and degrading agroecosystems: influences of fungi and aggregates, 54 (1995) 77
- Carbon adsorption**
Efficiency of the Carbo-Flo process to purify process water contaminated with agricultural pesticides, 54 (1995) 45
- Carbon balance**
Effects of slash-and-burn agriculture and deforestation on climate change, 58 (1996) 13
- Carbon dioxide**
Carbon dioxide and temperature effects on pima cotton growth, 54 (1995) 17

Growth, morphology and yield of wheat, barley and oats grown at elevated atmospheric CO₂ concentration in a cool, maritime climate, 57 (1996) 9
- Carbon mineralisation**
Dynamic transformation of sewage sludge and farmyard manure components. 1. Content of humic substances and mineralisation of organic carbon and nitrogen in incubated soils, 58 (1996) 121
- Carbon translocation**
Use of ¹³C and ¹⁵N isotopes to investigate O₃ effects on C and N metabolism in soybeans. Part II. Nitrogen uptake, fixation, and partitioning, 60 (1996) 61
- Carbon uptake**
Use of ¹³C and ¹⁵N isotopes to investigate O₃ effects on C and N metabolism in soybeans. Part I. C fixation and translocation, 59 (1996) 69
- Carrots**
Yield, vitamin and mineral contents of organically and conventionally grown carrots and cabbage, 61 (1997) 155
- Cassava**
Determinants of cassava distribution in Nigeria, 60 (1996) 139

Effects of intercropping with maize on the micro-environment, growth and yield of cassava, 57 (1996) 149

Cassava (*Manihot esculenta*)

Evaluating baseline data for copper, manganese, nickel and zinc in rice, yam, cassava and guinea grass from cultivated soils in Nigeria, 53 (1995) 47

Catch crop

Field monitoring of nitrate leaching and water flow in a structured clay soil, 52 (1995) 251

Cattle manure

Effects of manure treatment and soil compaction on plant production of a dairy farm system converting to organic farming practice, 56 (1996) 173

Cereals

Growth, morphology and yield of wheat, barley and oats grown at elevated atmospheric CO₂ concentration in a cool, maritime climate, 57 (1996) 9

Chard

Effects of repeated sewage sludge applications on plant accumulation of heavy metals, 55 (1995) 1

***Cheilomenes lunata* (F.)**

Studies on the capability of *Cheilomenes lunata* (Fabricius) (Coleoptera: Coccinellidae) to prey on the cowpea aphid, *Aphis craccivora* Koch (Homoptera: Aphididae) in Nigeria, 52 (1995) 35

***Chenopodium album* L.**

Crop-weed interference as influenced by a leguminous or synthetic fertilizer nitrogen source: I. Doublecropping experiments with crimson clover, sweet corn, and lambsquarters, 56 (1995) 93

Crop-weed interference as influenced by a leguminous or synthetic fertilizer nitrogen source: II. Rotation experiments with crimson clover, field corn, and lambsquarters, 56 (1995) 109

China

Nitrate pollution of groundwater in northern China, 59 (1996) 223

Chromolaena odorata

Potential distribution of *Chromolaena odorata* (siam weed) in Australia, Africa and Oceania, 59 (1996) 89

Review of the status and integrated control of the invasive alien weed, *Chromolaena odorata*, in South Africa, 56 (1996) 151

Cichorium intybus

Effects of compost-derived humic acids on vegetable biomass production and microbial growth within a plant (*Cichorium intybus*)-soil system: a comparative study, 58 (1996) 133

Citrus

Localized failure of a weed biological control agent attributed to insecticide drift, 52 (1995) 197

Clay soils

Assessment of soluble phosphorus load in surface runoff by soil analyses, 56 (1995) 53

Clay-loam soil

Trace metals uptake and distribution in corn plants grown on a 6-year urban waste compost amended soil, 58 (1996) 199

Climate change

Climate variability and agroecological change in the Central Pampas of Argentina, 55 (1995) 7

Effects of slash-and-burn agriculture and deforestation on climate change, 58 (1996) 13

Climate change impacts

Modelling the effect of shelterbelts on maize productivity under climate change: An application of the EPIC model, 61 (1997) 163

Climate matching

Potential distribution of *Chromolaena odorata* (siam weed) in Australia, Africa and Oceania, 59 (1996) 89

Clover

Exposure of a grass-clover mixture to ozone in open-top chambers—effects on yield, quality and botanical composition, 59 (1996) 55

Colonies

Slash-and-burn agriculture, conversion to pasture, and deforestation in two Brazilian Amazon colonies, 59 (1996) 115

Columba palumbus

The effect on the woodpigeon (*Columba palumbus*) of the introduction of oilseed rape into Britain, 61 (1997) 113

Competing risks analysis

The influence of post-flowering pests on cowpea seed yield with particular reference to damage by Heteroptera in southern Benin, 53 (1995) 137

Competition

Contrasting effects of roots and mulch from three agroforestry tree species on yields of alley cropped maize, 54 (1995) 89

Effects of different methods of soil tillage and biomass application on crop yields and soil properties in agroforestry with high tree competition, 52 (1995) 129

Compost

Effect of storage and composting on the properties and degradability of cattle manure, 54 (1995) 203

Testing low-quality urban composts for agriculture: germination and seedling performance of plants, 54 (1995) 127

Compost application

Effects of organic-waste compost addition on sesame growth, yield and chemical composition, 60 (1996) 157

Conservation

Insects, plants and succession: advantages of long-term set-aside, 53 (1995) 201

Conservation farming

Economic indicators to assess the sustainability of conservation farming projects: An evaluation, 57 (1996) 117

Constructed wetlands

Constructed wetlands to treat wastewater from dairy and swine operations: a review, 58 (1996) 97

Contamination

Contamination of surface water as affected by land use in acid sulfate soils in the Mekong River Delta, Vietnam, 61 (1997) 19

Continuous cropping

Changes in soil properties during long-term fallow and continuous cultivation after forest clearing in Nigeria, 56 (1995) 9

Continuous cultivation

Hill-slope agro-ecosystems and their implications on environmental systems in rural southwestern Nigeria, 61 (1997) 97

Contour hedgerows

Soil and water conservation by contour hedging in the humid tropics of Peru, 57 (1996) 17

Conventional-till agroecosystem

Soil carbohydrates in aggrading and degrading agroecosystems: influences of fungi and aggregates, 54 (1995) 77

Copper

Effects of repeated sewage sludge applications on plant accumulation of heavy metals, 55 (1995) 1

Corms

The fate of morphologically different populations of *Arrhenatherum elatius* transplanted into arable and semi-natural habitats, 60 (1996) 107

Costa Rica

Leaf litter decomposition and mulch performance from mixed and monospecific plantations of native tree species in Costa Rica, 58 (1996) 145

Cotton

Carbon dioxide and temperature effects on pima cotton growth, 54 (1995) 17

Cover crops

Winter cover crops in a vegetable cropping system: Impacts on nitrate leaching, soil water, crop yield, pests and management costs, 59 (1996) 1

Cover plants

Soil rehabilitation and erosion control through agro-ecological practices on Reunion Island (French Overseas Territory, Indian Ocean), 59 (1996) 149

Cow parsley

Dispersal of *Bromus sterilis* and *Anthriscus sylvestris* seed within arable field margins, 59 (1996) 107

Cowpea

Effect of soils, cropping system and host phenotype on incidence and severity of *Striga gesnerioides* on cowpea in West Africa, 53 (1995) 253

Influence of host plant abundance and insect diet on the host selection behavior of *Maruca testulalis* Geyer (Lepidoptera: Pyralidae) and *Riptortus dentipes* Fab (Hemiptera: Alydidae), 60 (1996) 71

Cress

Testing low-quality urban composts for agriculture: germination and seedling performance of plants, 54 (1995) 127

Critical loads

Interactive effects of gaseous air pollutants and acid mist on two major pasture grasses, 57 (1996) 1

Crop damage

Annual variation in white-tailed deer damage in commercial nurseries, 55 (1995) 213

Effect of bean geese (*Anser fabalis*) grazing on winter wheat during migration stopover in southern Sweden, 54 (1995) 103

Crop management

Prospects and problems pertaining to the management of arbuscular mycorrhizae in agriculture, 60 (1996) 197

System dynamics and the definition of research domains for the northern Guinea savanna of West Africa, 57 (1996) 133

Crop model

Modelling the effect of shelterbelts on maize productivity under climate change: An application of the EPIC model, 61 (1997) 163

Crop residue

Energy-use patterns in sub-tropical rice-wheat cropping under short term application of crop residue and fertilizer, 61 (1997) 59

Crop resistance

Soil-fertility management and host preference by European corn borer, *Ostrinia nubilalis* (Hübner), on *Zea mays* L.: A comparison of organic and conventional chemical farming, 56 (1995) 1

Crop rotation

Energy output:input ratio of maize and sorghum management systems in eastern Nebraska, 53 (1995) 271

Crop-livestock interactions

System dynamics and the definition of research domains for the northern Guinea savanna of West Africa, 57 (1996) 133

Cropping systems

Economic-environmental tradeoffs among alternative crop rotations, 60 (1996) 17

Soil rehabilitation and erosion control through agro-ecological practices on Reunion Island (French Overseas Territory, Indian Ocean), 59 (1996) 149

Cultivated soils

Assessment of soluble phosphorus load in surface runoff by soil analyses, 56 (1995) 53

Cultivation

The fate of morphologically different populations of *Arrhenatherum elatius* transplanted into arable and semi-natural habitats, 60 (1996) 107

Cultural Ecology

Population pressure, environmental constraints and agricultural change in Bangladesh: examples from three agroecosystems, 55 (1995) 95

Cumulative effects

A conceptual model of cumulative environmental effects of agricultural land drainage, 53 (1995) 99

Analyzing cumulative environmental effects of agricultural land drainage in southern Ontario, Canada, 53 (1995) 279

Dairy parlor effluent

Constructed wetlands to treat wastewater from dairy and swine operations: a review, 58 (1996) 97

Deforestation

Effects of slash-and-burn agriculture and deforestation on climate change, 58 (1996) 13

Historical land use evolution in a tropical acid upland agroecosystem, 53 (1995) 83

Slash-and-burn agriculture, conversion to pasture, and deforestation in two Brazilian Amazon colonies, 59 (1996) 115

Density dependence

Predator-prey association in mono- and dicultures: Effect of maize and bean vegetation, 54 (1995) 115

Desertification

On shelterbelt design for combating sand invasion, 57 (1996) 81

Desmodium intortum

Inoculation and phosphorus effects on *Desmodium intortum* and *Sesbania sesban* in the Ethiopian highlands, 56 (1996) 165

Dike-pond system

Environmental impact on the development of agricultural technology in China: the case of the dike-pond ('jitang') system of integrated agriculture-aquaculture in the Zhujiang Delta of China, 60 (1996) 183

Direct seeding rice

Energy analysis of wetland rice systems in Thailand, 52 (1995) 173

Dispersal

Movements of *Abax parallelepipedus* (Coleoptera, Carabidae) in woody habitats of a hedgerow network landscape: a radio-tracing study, 61 (1997) 133

Distribution

Potential distribution of *Chromolaena odorata* (siam weed) in Australia, Africa and Oceania, 59 (1996) 89

Review of the status and integrated control of the invasive alien weed, *Chromolaena odorata*, in South Africa, 56 (1996) 151

Diversity

The effects of artificial weed strips on diversity and abundance of the arthropod fauna in a Swiss experimental apple orchard, 60 (1996) 47

Drainage

A conceptual model of cumulative environmental effects of agricultural land drainage, 53 (1995) 99

Analyzing cumulative environmental effects of agricultural land drainage in southern Ontario, Canada, 53 (1995) 279

The impact of agricultural practices on biodiversity, 55 (1995) 201

Drinking water

Nitrate pollution of groundwater in northern China, 59 (1996) 223

Drip irrigation

Nitrate leaching and strawberry production under drip irrigation management, 56 (1995) 121

Drought

Mycorrhizal colonization and drought stress as factors affecting nitrate reductase activity in lettuce plants, 60 (1996) 175

Drought-resistance

Are mediterranean plant species likely to have a distinctive response to SO₂ pollution?, 55 (1995) 71

Dry matter

Effects of ozone on dry matter partitioning and yield of Japanese cultivars of rice (*Oryza sativa* L.), 53 (1995) 109

Dung

Seasonal dung beetle activity and dung dispersal in selected South African habitats: implications for pasture improvement in Australia, 58 (1996) 157

Dung beetles

Lethal and sublethal effects of ivermectin on the dung-breeding beetles *Euoniticellus intermedius* (Reiche) and *Onitis alexis* Klug (Coleoptera, Scarabaeidae), 61 (1997) 123

Dynamics

Species biodiversity in changing agricultural landscapes: A case study in the Pays d'Auge, France, 55 (1995) 193

Dynamics of exchangeable catio

Fine root mineralization, soil organic matter and exchangeable cation dynamics in slash and burn agriculture in the semi-arid northeast of Brazil, 59 (1996) 191

EDU

Assessment of EDU stem injections as a technique to investigate the response of trees to ambient ozone in field conditions, 59 (1996) 33

Earthworms

Effects of manure treatment and soil compaction on plant production of a dairy farm system converting to organic farming practice, 56 (1996) 173

Eastern gamagrass

Incidence and severity of viral disease symptoms on eastern gamagrass within monoculture and polycultures, 59 (1996) 139

Ecological economics

A research framework to achieve sustainable use of rangeland, 57 (1996) 91

Economic analysis

Winter cover crops in a vegetable cropping system: Impacts on nitrate leaching, soil water, crop yield, pests and management costs, 59 (1996) 1

Economic indicators

Economic indicators to assess the sustainability of conservation farming projects: An evaluation, 57 (1996) 117

Economics

Economic-environmental tradeoffs among alternative crop rotations, 60 (1996) 17

Ecotoxicity test

Effect of sulphadimethoxine contamination on barley (*Hordeum distichum* L., Poaceae, Liliopsida), 60 (1996) 121

Effect on plants of sulphadimethoxine used in intensive farming (*Panicum miliaceum*, *Pisum sativum* and *Zea mays*), 52 (1995) 103

Emission of pesticides to surface water

Efficiency of the Carbo-Flo process to purify process water contaminated with agricultural pesticides, 54 (1995) 45

Energy

Energy-use patterns in sub-tropical rice-wheat cropping under short term application of crop residue and fertilizer, 61 (1997) 59

Energy analysis

Energy analysis of wetland rice systems in Thailand, 52 (1995) 173

Energy efficiency

Energy analysis of tillage and herbicide inputs in alternative weed management systems, 52 (1995) 119

Energy saving

Temperature effect on anaerobic digestion of bedding straw in a one phase system at different inoculum concentration, 54 (1995) 55

Environment

Agriculture, environment and biotechnology, 53 (1995) 31

Hill-slope agro-ecosystems and their implications on environmental systems in rural southwestern Nigeria, 61 (1997) 97

Soil erosion and environmental impact of vegetable production in the Cameron Highlands, Malaysia, 60 (1996) 29

Environmental hazard

Economic-environmental tradeoffs among alternative crop rotations, 60 (1996) 17

Environmental impact

A conceptual model of cumulative environmental effects of agricultural land drainage, 53 (1995) 99

Analyzing cumulative environmental effects of agricultural land drainage in southern Ontario, Canada, 53 (1995) 279

Assessing the impact of pesticides on the environment, 60 (1996) 81

Environmental impact on the development of agricultural technology in China: the case of the dike-pond ('jitang') system of integrated agriculture-aquaculture in the Zhujiang Delta of China, 60 (1996) 183

Epilachna varivestis

Predator-prey association in mono- and dicultures: Effect of maize and bean vegetation, 54 (1995) 115

Erosion

Economic-environmental tradeoffs among alternative crop rotations, 60 (1996) 17

Erosion control

Soil rehabilitation and erosion control through agro-ecological practices on Reunion Island (French Overseas Territory, Indian Ocean), 59 (1996) 149

Eucalyptus microtheca

On shelterbelt design for combating sand invasion, 57 (1996) 81

European corn borer

Aptness of insecticides (*Bacillus thuringiensis* and carbofuran) with endophytic *Beauveria bassiana*, in suppressing larval populations of the European corn borer, 57 (1996) 27

Eutrophication

Assessment of soluble phosphorus load in surface runoff by soil analyses, 56 (1995) 53

Evaluation

A review of the evaluation and use of tropical forage legumes in sub-Saharan Africa, 54 (1995) 151

Extensification

Grazing animal husbandry based on sustainable nutrient management, 52 (1995) 213

Farmer organization

Indigenous community-managed irrigation in Sahelian West Africa, 61 (1997) 83

Farming systems

Effects of different intensities of fertilisers and pesticides on aphids and aphid predators in winter wheat, 52 (1995) 45

Farming systems dynamics: Impact of increasing population density and the availability of land resources on changes in agricultural systems. The case of Sukumaland, Tanzania, 56 (1996) 203

Historical land use evolution in a tropical acid upland agro-ecosystem, 53 (1995) 83

Species biodiversity in changing agricultural landscapes: A case study in the Pays d'Auge, France, 55 (1995) 193

System dynamics and the definition of research domains for the northern Guinea savanna of West Africa, 57 (1996) 133

Farmland

Bumblebee movement in a fragmented agricultural landscape, 61 (1997) 145

Factors determining the effects of pesticides upon butterflies inhabiting arable farmland, 61 (1997) 1

Foraging activity of bumblebees (*Bombus*) in relation to flower resources on arable land, 53 (1995) 123

Fecundity

Lethal and sublethal effects of ivermectin on the dung-breeding beetles *Euoniticellus intermedius* (Reiche) and *Onitis alexis* Klug (Coleoptera, Scarabaeidae), 61 (1997) 123

Fencerows

Fencerow and forest edge architecture in eastern Ontario farmland, 59 (1996) 159

Fertilisation

Influence of inoculation with arbuscular mycorrhizal fungi on the growth and mycorrhizal infection of transplanted onion, 53 (1995) 151

Reducing nitrogen losses by decreasing mineral fertilisation in horticultural crops of eastern Spain, 59 (1996) 217

Fertiliser mis-application

The effect of nitrogen fertiliser on the growth of *Bromus sterilis* in field boundary vegetation, 53 (1995) 185

Fertility

Lethal and sublethal effects of ivermectin on the dung-breeding beetles *Euoniticellus intermedius* (Reiche) and *Onitis alexis* Klug (Coleoptera, Scarabaeidae), 61 (1997) 123

The effect of ivermectin on the development and reproduction of the dung-breeding fly *Musca nevillei* Kleyhans (Diptera, Muscidae), 53 (1995) 13

Fertilizer

Effects of soil management on crop nitrogen and insect damage in organic vs. conventional tomato fields, 57 (1996) 179

Energy-use patterns in sub-tropical rice-wheat cropping under short term application of crop residue and fertilizer, 61 (1997) 59

The effect of ammonium nitrate fertiliser on frog (*Rana temporaria*) survival, 61 (1997) 69

The impact of agricultural practices on biodiversity, 55 (1995) 201

Fertilizer applications

Field monitoring of nitrate leaching and water flow in a structured clay soil, 52 (1995) 251

Field margins

Foraging activity of bumblebees (*Bombus*) in relation to flower resources on arable land, 53 (1995) 123

The effect of nitrogen fertiliser on the growth of *Bromus sterilis* in field boundary vegetation, 53 (1995) 185

Field study

Efficiency of the Carbo-Flo process to purify process water contaminated with agricultural pesticides, 54 (1995) 45

Filter strips

Effects of ground cover on tree survival and growth in filter strips of the Cornbelt Region of the midwestern US, 53 (1995) 263

Fine roots

Fine root mineralization, soil organic matter and exchangeable cation dynamics in slash and burn agriculture in the semi-arid northeast of Brazil, 59 (1996) 191

Fish

The impact of selenium supplemented fertilization on selenium in lake ecosystems in Finland, 54 (1995) 137

Fish production

An artificial productive ecosystem based on a fish/bacteria/plant association. 2. Performance, 53 (1995) 19

Floral resources

Foraging activity of bumblebees (*Bombus*) in relation to flower resources on arable land, 53 (1995) 123

Fluometuron

Long-term tillage effects on atrazine and fluometuron sorption in Coastal Plain soils, 60 (1996) 165

Fluoride

Effects of fluoride and acidity on early plant growth, 52 (1995) 205

Foraging

Foraging activity of bumblebees (*Bombus*) in relation to flower resources on arable land, 53 (1995) 123

Forest degradation

Hill-slope agro-ecosystems and their implications on environmental systems in rural southwestern Nigeria, 61 (1997) 97

Forest destruction

Alternatives to slash-and-burn: a global imperative, 58 (1996) 3

Forest ecosystems

Chemical dynamics in slash-and-burn agriculture, 58 (1996) 49

Forest edges

Fencerow and forest edge architecture in eastern Ontario farmland, 59 (1996) 159

Forest margins

Slash-and-burn agriculture — household perspectives, 58 (1996) 23

Fragaria annanasa

Nitrate leaching and strawberry production under drip irrigation management, 56 (1995) 121

Frog

The effect of ammonium nitrate fertiliser on frog (*Rana temporaria*) survival, 61 (1997) 69

Fulvic acid

Dynamic transformation of sewage sludge and farmyard manure components. 1. Content of humic substances and mineralisation of organic carbon and nitrogen in incubated soils, 58 (1996) 121

Fumigation

Influence of inoculation with arbuscular mycorrhizal fungi on the growth and mycorrhizal infection of transplanted onion, 53 (1995) 151

Fungal alkaline phosphatase

Influence of phosphate fertilization on fungal alkaline phosphatase and succinate dehydrogenase activities in arbuscular mycorrhiza of soybean and pineapple, 53 (1995) 63

Fungi

Interaction of soil microflora with the bioherbicide phosphinothricin, 54 (1995) 165

Fungicide reduction

Fungicide use reduction in apple production—potentials or pipe dreams?, 53 (1995) 231

Gas exchange

Use of ^{13}C and ^{15}N isotopes to investigate O_3 effects on C and N metabolism in soybeans. Part I. C fixation and translocation, 59 (1996) 69

Germination

Testing low-quality urban composts for agriculture: germination and seedling performance of plants, 54 (1995) 127

G. fasciculatum

Interaction of multiple VAM fungal species on root colonization, plant growth and nutrient status of tomato seedlings (*Lycopersicon esculentum* Mill.), 59 (1996) 63

G. geosporum

Interaction of multiple VAM fungal species on root colonization, plant growth and nutrient status of tomato seedlings (*Lycopersicon esculentum* Mill.), 59 (1996) 63

Gliricidia sepium

Contrasting effects of roots and mulch from three agroforestry tree species on yields of alley cropped maize, 54 (1995) 89

Global warming

Alternatives to slash-and-burn: a global imperative, 58 (1996) 3

Glomalean fungi

Prospects and problems pertaining to the management of arbuscular mycorrhizae in agriculture, 60 (1996) 197

Glomus aggregatum

Interaction of multiple VAM fungal species on root colonization, plant growth and nutrient status of tomato seedlings (*Lycopersicon esculentum* Mill.), 59 (1996) 63

***Glomus* species**

Relevance of mycorrhizal fungal origin and host plant genotype to inducing growth and nutrient uptake in *Medicago* species, 60 (1996) 9

***Glomus* spp.**

Effect of tillage and farming system upon populations and distribution of vesicular-arbuscular mycorrhizal fungi, 52 (1995) 111

Glycine max

Use of ^{13}C and ^{15}N isotopes to investigate O_3 effects on C and N metabolism in soybeans. Part I. C fixation and translocation, 59 (1996) 69

Use of ^{13}C and ^{15}N isotopes to investigate O_3 effects on C and N metabolism in soybeans. Part II. Nitrogen uptake, fixation, and partitioning, 60 (1996) 61

Golan Heights

The Mediterranean grazing ecosystems of the Golan Heights, 54 (1995) 67

***Gossypium barbadense* L.**

Carbon dioxide and temperature effects on pima cotton growth, 54 (1995) 17

Grass

Exposure of a grass-clover mixture to ozone in open-top chambers—effects on yield, quality and botanical composition, 59 (1996) 55

Interactive effects of gaseous air pollutants and acid mist on two major pasture grasses, 57 (1996) 1

Grassland

Ecological effects of the invasive weed species *Senecio jacobaea* L. (ragwort) in a New Zealand pasture, 56 (1995) 19

Grassland agronomy

Nutrient losses in runoff water following application of different fertilisers to grassland cut for silage, 55 (1995) 181

Grazing

Effect of bean geese (*Anser fabalis*) grazing on winter wheat during migration stopover in southern Sweden, 54 (1995) 103

The impact of agricultural practices on biodiversity, 55 (1995) 201

Grazing pressure

The Mediterranean grazing ecosystems of the Golan Heights, 54 (1995) 67

Green compost

Effects of compost-derived humic acids on vegetable biomass production and microbial growth within a plant (*Cichorium intybus*)-soil system: a comparative study, 58 (1996) 133

Green manure

Dry matter and nitrogen accumulation by three leguminous green manure species and the yield of a following wheat crop in an organic production system, 57 (1996) 189

Effects of different methods of soil tillage and biomass application on crop yields and soil properties in agroforestry with high tree competition, 52 (1995) 129

Greenhouse gas

Effect of rice variety on methane emission from Louisiana rice, 54 (1995) 109

Ground cover

Effects of ground cover on tree survival and growth in filter strips of the Cornbelt Region of the midwestern US, 53 (1995) 263

Ground water

Nitrate pollution of groundwater in northern China, 59 (1996) 223

Growth

Assessment of EDU stem injections as a technique to investigate the response of trees to ambient ozone in field conditions, 59 (1996) 33

Exclusion of UV-B radiation from normal solar spectrum on the growth of mung bean and maize, 61 (1997) 29

Growth depression

Influence of native endomycorrhiza, soil flooding and nurse plant on mycorrhizal status and growth of purple nutsedge (*Cyperus rotundus* L.), 61 (1997) 51

G. sinuosum

Interaction of multiple VAM fungal species on root colonization, plant growth and nutrient status of tomato seedlings (*Lycopersicon esculentum* Mill.), 59 (1996) 63

Guinea grass (*Panicum maximum*)

Evaluating baseline data for copper, manganese, nickel and zinc in rice, yam, cassava and guinea grass from cultivated soils in Nigeria, 53 (1995) 47

Gypsum mined spoil

Mycorrhizal colonization and nutrient concentration of naturally grown plants on gypsum mine spoils in India, 61 (1997) 13

Habitat diversity

Predator-prey association in mono- and dicultures: Effect of maize and bean vegetation, 54 (1995) 115

Haimantic

Population pressure, environmental constraints and agricultural change in Bangladesh: examples from three agroecosystems, 55 (1995) 95

Headwaters

Hill-slope agro-ecosystems and their implications on environmental systems in rural southwestern Nigeria, 61 (1997) 97

Heavy metals

Alfalfa growth and absorption of cadmium and zinc from soils amended with sewage sludge, 53 (1995) 179

Effects of organic-waste compost addition on sesame growth, yield and chemical composition, 60 (1996) 157

Enumeration and N₂ fixation potential of *Rhizobium leguminosarum* biovar *trifolii* grown in soil with varying pH values and heavy metal concentrations, 61 (1997) 103

Trace metals uptake and distribution in corn plants grown on a 6-year urban waste compost amended soil, 58 (1996) 199

Hedge

Permeability of hedgerows to predatory carabid beetles, 52 (1995) 141

Hedgerows

Breeding birds in field boundaries in an agricultural landscape, 60 (1996) 1

Hedging

Soil rehabilitation and erosion control through agro-ecological practices on Reunion Island (French Overseas Territory, Indian Ocean), 59 (1996) 149

Helmeted guineafowl

The effectiveness of helmeted guineafowl *Numida meleagris* (Linnaeus 1766) in controlling the banded fruit weevil *Phlyctinus callosus* (Schönherr 1826), and their impact on other invertebrates in apple orchards in the Western Cape Province, South Africa, 55 (1995) 169

Herbaceous forages

A review of the evaluation and use of tropical forage legumes in sub-Saharan Africa, 54 (1995) 151

Herbicide

Energy analysis of tillage and herbicide inputs in alternative weed management systems, 52 (1995) 119

Impacts of agricultural herbicide use on terrestrial wildlife in temperate landscapes: A review with special reference to North America, 52 (1995) 67

Interaction of soil microflora with the bioherbicide phosphinothricin, 54 (1995) 165

Herbivory

Annual variation in white-tailed deer damage in commercial nurseries, 55 (1995) 213

Effects of soil management on crop nitrogen and insect damage in organic vs. conventional tomato fields, 57 (1996) 179

Localized failure of a weed biological control agent attributed to insecticide drift, 52 (1995) 197

Hill-slope

Hill-slope agro-ecosystems and their implications on environmental systems in rural southwestern Nigeria, 61 (1997) 97

Hoagland's mineral solution

Effects of compost-derived humic acids on vegetable biomass production and microbial growth within a plant (*Cichorium intybus*)-soil system: a comparative study, 58 (1996) 133

Hordeum distichum

Effect of sulphadimethoxine contamination on barley (*Hordeum distichum* L., Poaceae, Liliopsida), 60 (1996) 121

***Hordeum* spp.**

The Mediterranean grazing ecosystems of the Golan Heights, 54 (1995) 67

Host plant selection

Influence of host plant abundance and insect diet on the host selection behavior of *Maruca testulalis* Geyer (Lepidoptera: Pyralidae) and *Riptortus dentipes* Fab (Hemiptera: Alydidae), 60 (1996) 71

Host preference

Oviposition behaviour of the polyphagous aphid parasitoid *Aphidius colemani* Viereck (Hymenoptera: Aphididae), 52 (1995) 13

Host selection

Soil-fertility management and host preference by European corn borer, *Ostrinia nubilalis* (Hübner), on *Zea mays* L.: A comparison of organic and conventional chemical farming, 56 (1995) 1

Household resource use

Slash-and-burn agriculture — household perspectives, 58 (1996) 23

Humic acid

Dynamic transformation of sewage sludge and farmyard manure components. 1. Content of humic substances and mineralisation of organic carbon and nitrogen in incubated soils, 58 (1996) 121

Effects of compost-derived humic acids on vegetable biomass production and microbial growth within a plant (*Cichorium intybus*)-soil system: a comparative study, 58 (1996) 133

Humid tropics

Soil and water conservation by contour hedging in the humid tropics of Peru, 57 (1996) 17

Humification

Effect of storage and composting on the properties and degradability of cattle manure, 54 (1995) 203

Hydrology

The impact on hydrology and water quality of woodland and set-aside establishment on lowland clay soils, 54 (1995) 215

Hydroponics

An artificial productive ecosystem based on a fish/bacteria/plant association. 2. Performance, 53 (1995) 19

IDRISI

Qualitative land suitability assessment for pyrethrum cultivation in west Kenya based upon computer-captured expert knowledge and GIS, 56 (1996) 187

IPM

Consumer response to integrated pest management and certification, 60 (1996) 97

Fungicide use reduction in apple production—potentials or pipe dreams?, 53 (1995) 231

Soil erosion and environmental impact of vegetable production in the Cameron Highlands, Malaysia, 60 (1996) 29

IPM certification

Consumer response to integrated pest management and certification, 60 (1996) 97

IPM marketing

Consumer response to integrated pest management and certification, 60 (1996) 97

Impacts

Impacts of agricultural herbicide use on terrestrial wildlife in temperate landscapes: A review with special reference to North America, 52 (1995) 67

Implementation

Integrated mite control in apples in Queensland, Australia, 60 (1996) 129

Index

Assessing the relative environmental impacts of agricultural pesticides: the quest for a holistic method, 55 (1995) 153

Individual movement

Movements of *Abax parallelepipedus* (Coleoptera, Carabidae) in woody habitats of a hedgerow network landscape: a radio-tracing study, 61 (1997) 133

Inoculation

Influence of inoculation with arbuscular mycorrhizal fungi on the growth and mycorrhizal infection of transplanted onion, 53 (1995) 151

Prospects and problems pertaining to the management of arbuscular mycorrhizae in agriculture, 60 (1996) 197

Input

Effects of different intensities of fertilisers and pesticides on aphids and aphid predators in winter wheat, 52 (1995) 45

Input-output nutrient balance

Grazing animal husbandry based on sustainable nutrient management, 52 (1995) 213

Insect

The effect of ozone, nitrogen dioxide or nitric oxide fumigation of cereals on the rose grain aphid *Metopolophium dirhodum*, 54 (1995) 187

Insect injury

Effects of soil management on crop nitrogen and insect damage in organic vs. conventional tomato fields, 57 (1996) 179

Insect-plant interactions

Effects of soil management on crop nitrogen and insect damage in organic vs. conventional tomato fields, 57 (1996) 179

Insecticide

Aptness of insecticides (*Bacillus thuringiensis* and carbofuran) with endophytic *Beauveria bassiana*, in suppressing larval populations of the European corn borer, 57 (1996) 27

Insects

Impacts of agricultural herbicide use on terrestrial wildlife in temperate landscapes: A review with special reference to North America, 52 (1995) 67

Integrated control

Review of the status and integrated control of the invasive alien weed, *Chromolaena odorata*, in South Africa, 56 (1996) 151

Integrated farming

Some effects of polyphagous predators on an outbreak of cereal aphid (*Sitobion avenae* F.) and orange wheat blossom midge (*Sitodiplosis mosellana* Géhin), 59 (1996) 181

Integrated mite control

Integrated mite control in apples in Queensland, Australia, 60 (1996) 129

Integrated pest management

Arthropod pest and natural enemy abundance under second-level versus first-level integrated pest management practices in apple orchards: a 4-year study, 57 (1996) 35

Integrated mite control in apples in Queensland, Australia, 60 (1996) 129

Intensification

System dynamics and the definition of research domains for the northern Guinea savanna of West Africa, 57 (1996) 133

Intensive farming

Effect of sulphadimethoxine contamination on barley (*Hordeum distichum* L., Poaceae, Liliopsida), 60 (1996) 121

Effect on plants of sulphadimethoxine used in intensive farming (*Panicum miliaceum*, *Pisum sativum* and *Zea mays*), 52 (1995) 103

Interaction

Effect of cadmium and zinc interaction on metal uptake and regeneration of tolerant plants in linseed, 61 (1997) 45

Interaction of multiple VAM fungal species on root colonization, plant growth and nutrient status of tomato seedlings (*Lycopersicon esculentum* Mill.), 59 (1996) 63

Intercropping

Agronomic and economic evaluation of methods of establishing alley cropping under a maize/groundnut intercrop system, 56 (1995) 29

Effects of intercropping with maize on the micro-environment, growth and yield of cassava, 57 (1996) 149

Organic resource management in banana-based cropping systems of the Lake Victoria Basin, Uganda, 59 (1996) 171

Predator-prey association in mono- and dicultures: Effect of maize and bean vegetation, 54 (1995) 115

The impact of agricultural practices on biodiversity, 55 (1995) 201

International development

Indigenous community-managed irrigation in Sahelian West Africa, 61 (1997) 83

Interview surveys

Integrated mite control in apples in Queensland, Australia, 60 (1996) 129

Invasive vegetation

Ground-living invertebrate assemblages in native, planted and invasive vegetation in South Africa, 59 (1996) 19

Invermectin

The effect of ivermectin on the development and reproduction of the dung-breeding fly *Musca nevillei* Kleynhans (Diptera, Muscidae), 53 (1995) 13

Invertebrates

Ground-living invertebrate assemblages in native, planted and invasive vegetation in South Africa, 59 (1996) 19

Impacts of agricultural herbicide use on terrestrial wildlife in temperate landscapes: A review with special reference to North America, 52 (1995) 67

Ionic strength

Assessment of soluble phosphorus load in surface runoff by soil analyses, 56 (1995) 53

Irrigation

Energy output:input ratio of maize and sorghum management systems in eastern Nebraska, 53 (1995) 271

Indigenous community-managed irrigation in Sahelian West Africa, 61 (1997) 83

Influence of inoculation with arbuscular mycorrhizal fungi on the growth and mycorrhizal infection of transplanted onion, 53 (1995) 151

Isotope

Use of ^{13}C and ^{15}N isotopes to investigate O_3 effects on C and N metabolism in soybeans. Part II. Nitrogen uptake, fixation, and partitioning, 60 (1996) 61

Japan

The effect of night grazing by wigeon (*Anas penelope*) on winter-sown wheat in Japan and the efficacy of black plastic flags as scaring devices, 59 (1996) 81

Kenya

Qualitative land suitability assessment for pyrethrum cultivation in west Kenya based upon computer-captured expert knowledge and GIS, 56 (1996) 187

Kharif

Population pressure, environmental constraints and agricultural change in Bangladesh: examples from three agroecosystems, 55 (1995) 95

Kinetics

Temperature effect on anaerobic digestion of bedding straw in a one phase system at different inoculum concentration, 54 (1995) 55

Lake water

The impact of selenium supplemented fertilization on selenium in lake ecosystems in Finland, 54 (1995) 137

Land abandonment

Species biodiversity in changing agricultural landscapes: A case study in the Pays d'Auge, France, 55 (1995) 193

Land management

Land use, land management and environment in a subsistence mountain economy in Nepal, 57 (1996) 57

Land suitability

Qualitative land suitability assessment for pyrethrum cultivation in west Kenya based upon computer-captured expert knowledge and GIS, 56 (1996) 187

Land use

Breeding birds in field boundaries in an agricultural landscape, 60 (1996) 1

Contamination of surface water as affected by land use in acid sulfate soils in the Mekong River Delta, Vietnam, 61 (1997) 19

Effects of riparian set-aside on soil characteristics in an agricultural landscape: Implications for nutrient transport and retention, 55 (1995) 61

Effects of slash-and-burn agriculture and deforestation on climate change, 58 (1996) 13

Land use, land management and environment in a subsistence mountain economy in Nepal, 57 (1996) 57

Slash-and-burn agriculture, conversion to pasture, and deforestation in two Brazilian Amazon colonies, 59 (1996) 115

Land use patterns

Climate variability and agroecological change in the Central Pampas of Argentina, 55 (1995) 7

Landscape

Permeability of hedgerows to predatory carabid beetles, 52 (1995) 141

Landscape ecology

A research framework to achieve sustainable use of rangeland, 57 (1996) 91

Fencerow and forest edge architecture in eastern Ontario farmland, 59 (1996) 159

Species biodiversity in changing agricultural landscapes: A case study in the Pays d'Auge, France, 55 (1995) 193

Landuse change

The impact on hydrology and water quality of woodland and set-aside establishment on lowland clay soils, 54 (1995) 215

Larval development

Lethal and sublethal effects of ivermectin on the dung-breeding beetles *Euoniticellus intermedius* (Reiche) and *Onitis alexis* Klug (Coleoptera, Scarabaeidae), 61 (1997) 123

The effect of ivermectin on the development and reproduction of the dung-breeding fly *Musca nevillei* Kleynhans (Diptera, Muscidae), 53 (1995) 13

Leaching

Assessing the impact of pesticides on the environment, 60 (1996) 81

Factors affecting nitrate leaching from sewage sludges applied to a sandy soil in arable agriculture, 58 (1996) 171

Reducing nitrogen losses by decreasing mineral fertilisation in horticultural crops of eastern Spain, 59 (1996) 217

Leaf growth

Carbon dioxide and temperature effects on pima cotton growth, 54 (1995) 17

Leaf injury

Assessment of EDU stem injections as a technique to investigate the response of trees to ambient ozone in field conditions, 59 (1996) 33

Legume

A review of the evaluation and use of tropical forage legumes in sub-Saharan Africa, 54 (1995) 151

Dry matter and nitrogen accumulation by three leguminous green manure species and the yield of a following wheat crop in an organic production system, 57 (1996) 189

Energy output:input ratio of maize and sorghum management systems in eastern Nebraska, 53 (1995) 271

Use of ^{13}C and ^{15}N isotopes to investigate O_3 effects on C and N metabolism in soybeans. Part II. Nitrogen uptake, fixation, and partitioning, 60 (1996) 61

Legume green manures

Crop-weed interference as influenced by a leguminous or synthetic fertilizer nitrogen source: I. Doublecropping experiments with crimson clover, sweet corn, and lambsquarters, 56 (1995) 93

Crop-weed interference as influenced by a leguminous or synthetic fertilizer nitrogen source: II. Rotation experiments with crimson clover, field corn, and lambsquarters, 56 (1995) 109

Ley

The fate of morphologically different populations of *Arrhenatherum elatius* transplanted into arable and semi-natural habitats, 60 (1996) 107

Light-use efficiency

Effects of ozone on the light use of rice (*Oryza sativa* L.) plants, 53 (1995) 1

Lime

Alfalfa growth and absorption of cadmium and zinc from soils amended with sewage sludge, 53 (1995) 179

Linseed

Effect of cadmium and zinc interaction on metal uptake and regeneration of tolerant plants in linseed, 61 (1997) 45

Litter decomposition

Leaf litter decomposition and mulch performance from mixed and monospecific plantations of native tree species in Costa Rica, 58 (1996) 145

Livestock

How land condition alters plant-animal relationships in Australia's tropical rangelands, 56 (1995) 77

Livestock production

Criteria for sustainable livestock production: a proposal for implementation, 53 (1995) 219

Lolium perenne

Caesium and strontium uptake by two pasture plant species grown in organic and inorganic soils, 56 (1995) 37

Louisiana, USA

Methane sources and sinks in paddy rice soils: relationship to emissions, 53 (1995) 243

Low-input agriculture

Energy analysis of tillage and herbicide inputs in alternative weed management systems, 52 (1995) 119

Lycopersicon esculentum

Interaction of multiple VAM fungal species on root colonization, plant growth and nutrient status of tomato seedlings (*Lycopersicon esculentum* Mill.), 59 (1996) 63

MRGR

The effect of ozone, nitrogen dioxide or nitric oxide fumigation of cereals on the rose grain aphid *Metopolophium dirhodum*, 54 (1995) 187

Macropore flow

Field monitoring of nitrate leaching and water flow in a structured clay soil, 52 (1995) 251

Maize

Aptness of insecticides (*Bacillus thuringiensis* and carbofuran) with endophytic *Beauveria bassiana*, in suppressing larval populations of the European corn borer, 57 (1996) 27

Contrasting effects of roots and mulch from three agroforestry tree species on yields of alley cropped maize, 54 (1995) 89

Effects of intercropping with maize on the micro-environment, growth and yield of cassava, 57 (1996) 149

Exclusion of UV-B radiation from normal solar spectrum on the growth of mung bean and maize, 61 (1997) 29

Modelling the effect of shelterbelts on maize productivity under climate change: An application of the EPIC model, 61 (1997) 163

Malaysia

Soil erosion and environmental impact of vegetable production in the Cameron Highlands, Malaysia, 60 (1996) 29

Mammals, Plants

Impacts of agricultural herbicide use on terrestrial wildlife in temperate landscapes: A review with special reference to North America, 52 (1995) 67

Managed ecosystems

Chemical dynamics in slash-and-burn agriculture, 58 (1996) 49

Management

Review of the status and integrated control of the invasive alien weed, *Chromolaena odorata*, in South Africa, 56 (1996) 151

Mangrove rice agro-ecosystem

Spatial variability of soil salinity at different scales in the mangrove rice agro-ecosystem in West Africa, 54 (1995) 1

Mantel test

Movements of Tortricid moths (Lep. Tortricidae) between apple orchards and adjacent ecosystems, 55 (1995) 37

Manure

Effect of storage and composting on the properties and degradability of cattle manure, 54 (1995) 203

Manure surpluses

Grazing animal husbandry based on sustainable nutrient management, 52 (1995) 213

Manure treatment

Effects of manure treatment and soil compaction on plant production of a dairy farm system converting to organic farming practice, 56 (1996) 173

Mark-reobservation

Bumblebee movement in a fragmented agricultural landscape, 61 (1997) 145

Market access

Determinants of cassava distribution in Nigeria, 60 (1996) 139

Maruca testulalis

Influence of host plant abundance and insect diet on the host selection behavior of *Maruca testulalis* Geyer (Lepidoptera):

Pyrilidae) and *Riptortus dentipes* Fab (Hemiptera: Alydidae), 60 (1996) 71

Medicago sativa

Alfalfa growth and absorption of cadmium and zinc from soils amended with sewage sludge, 53 (1995) 179

***Medicago* species**

Relevance of mycorrhizal fungal origin and host plant genotype to inducing growth and nutrient uptake in *Medicago* species, 60 (1996) 9

Mediterranean grassland

Phosphate fertilization primes production of rangeland on brown rendzina soils in the Galilee, Israel, 59 (1996) 43

The Mediterranean grazing ecosystems of the Golan Heights, 54 (1995) 67

Mediterranean plants

Are mediterranean plant species likely to have a distinctive response to SO₂ pollution?, 55 (1995) 71

Mekong Delta

Contamination of surface water as affected by land use in acid sulfate soils in the Mekong River Delta, Vietnam, 61 (1997) 19

Metal uptake

Effect of cadmium and zinc interaction on metal uptake and regeneration of tolerant plants in linseed, 61 (1997) 45

Methane

Effect of rice variety on methane emission from Louisiana rice, 54 (1995) 109

Methane emission

Methane sources and sinks in paddy rice soils: relationship to emissions, 53 (1995) 243

Methane oxidation

Methane sources and sinks in paddy rice soils: relationship to emissions, 53 (1995) 243

Micro-environment

Effects of intercropping with maize on the micro-environment, growth and yield of cassava, 57 (1996) 149

Microbial biomass

Effects of riparian set-aside on soil characteristics in an agricultural landscape: Implications for nutrient transport and retention, 55 (1995) 61

Winter cover crops in a vegetable cropping system: Impacts on nitrate leaching, soil water, crop yield, pests and management costs, 59 (1996) 1

Microclimate

Modelling the effect of shelterbelts on maize productivity under climate change: An application of the EPIC model, 61 (1997) 163

Microsporidium

Natural control of the Small Ermine Moth *Yponomeuta padella* (L.), 52 (1995) 93

Milk quota

Grazing animal husbandry based on sustainable nutrient management, 52 (1995) 213

Mineral nutrition

Effects of different methods of soil tillage and biomass application on crop yields and soil properties in agroforestry with high tree competition, 52 (1995) 129

Mitigation

Effect of rice variety on methane emission from Louisiana rice, 54 (1995) 109

Mixed farming

Development pathways toward sustainable systems following slash-and-burn, 58 (1996) 75

Mixed plantation

Leaf litter decomposition and mulch performance from mixed and monospecific plantations of native tree species in Costa Rica, 58 (1996) 145

Modelling

Modelling recent and historic soil data from the Rothamsted Experimental Station, UK using SAFE, 53 (1995) 161

Mosaic virus

Incidence and severity of viral disease symptoms on eastern gamagrass within monoculture and polycultures, 59 (1996) 139

Mountain environment

Land use, land management and environment in a subsistence mountain economy in Nepal, 57 (1996) 57

Movement

Bumblebee movement in a fragmented agricultural landscape, 61 (1997) 145

Movements of Tortricid moths (Lep. Tortricidae) between apple orchards and adjacent ecosystems, 55 (1995) 37

Permeability of hedgerows to predatory carabid beetles, 52 (1995) 141

Mulch

Effects of different methods of soil tillage and biomass application on crop yields and soil properties in agroforestry with high tree competition, 52 (1995) 129

Leaf litter decomposition and mulch performance from mixed and monospecific plantations of native tree species in Costa Rica, 58 (1996) 145

Multiple decrement life tables

The influence of post-flowering pests on cowpea seed yield with particular reference to damage by Heteroptera in southern Benin, 53 (1995) 137

Multivariate analysis

Movements of Tortricid moths (Lep. Tortricidae) between apple orchards and adjacent ecosystems, 55 (1995) 37

Mung bean

Exclusion of UV-B radiation from normal solar spectrum on the growth of mung bean and maize, 61 (1997) 29

Musca nevillei

The effect of ivermectin on the development and reproduction of the dung-breeding fly *Musca nevillei* Kleynhans (Diptera, Muscidae), 53 (1995) 13

Myzus persicae

Abundance, growth rate and parasitism of *Brevicoryne brassicae* and *Myzus persicae* (Homoptera: Aphididae) on broccoli grown in living mulches, 52 (1995) 187

Oviposition behaviour of the polyphagous aphid parasitoid *Aphidius colemani* Viereck (Hymenoptera: Aphididae), 52 (1995) 13

¹⁵N

Use of ¹³C and ¹⁵N isotopes to investigate O₃ effects on C and N metabolism in soybeans. Part II. Nitrogen uptake, fixation, and partitioning, 60 (1996) 61

N fertilizer

Crop-weed interference as influenced by a leguminous or synthetic fertilizer nitrogen source: I. Doublecropping experiments with crimson clover, sweet corn, and lambsquarters, 56 (1995) 93

Crop-weed interference as influenced by a leguminous or synthetic fertilizer nitrogen source: II. Rotation experiments with crimson clover, field corn, and lambsquarters, 56 (1995) 109

N-assimilation

Mycorrhizal colonization and drought stress as factors affecting nitrate reductase activity in lettuce plants, 60 (1996) 175

NR

Mycorrhizal colonization and drought stress as factors affecting nitrate reductase activity in lettuce plants, 60 (1996) 175

Native trees

Leaf litter decomposition and mulch performance from mixed and monospecific plantations of native tree species in Costa Rica, 58 (1996) 145

Native vegetation

Ground-living invertebrate assemblages in native, planted and invasive vegetation in South Africa, 59 (1996) 19

Phosphate fertilization primes production of rangeland on brown rendzina soils in the Galilee, Israel, 59 (1996) 43

Natural control

Natural control of the Small Ermine Moth *Yponomeuta padella* (L.), 52 (1995) 93

Natural enemies

Insects, plants and succession: advantages of long-term set-aside, 53 (1995) 201

Natural resource management

Slash-and-burn agriculture — household perspectives, 58 (1996) 23

Nematode

Effects of ammonia and root-knot nematode on tomato, 53 (1995) 71

Nepal

Land use, land management and environment in a subsistence mountain economy in Nepal, 57 (1996) 57

Nest site selection

Breeding birds in field boundaries in an agricultural landscape, 60 (1996) 1

Net photosynthesis

Use of ^{13}C and ^{15}N isotopes to investigate O_3 effects on C and N metabolism in soybeans. Part I. C fixation and translocation, 59 (1996) 69

New Zealand

Energy and labour efficiency for three pairs of conventional and alternative mixed cropping (pasture-arable) farms in Canterbury, New Zealand, 52 (1995) 163

Nickel

Effects of repeated sewage sludge applications on plant accumulation of heavy metals, 55 (1995) 1

Nigeria

Changes in soil properties during long-term fallow and continuous cultivation after forest clearing in Nigeria, 56 (1995) 9

Determinants of cassava distribution in Nigeria, 60 (1996) 139

Evaluating baseline data for copper, manganese, nickel and zinc in rice, yam, cassava and guinea grass from cultivated soils in Nigeria, 53 (1995) 47

Studies on the capability of *Cheilomenes lunata* (Fabricius) (Coleoptera: Coccinellidae) to prey on the cowpea aphid, *Aphis craccivora* Koch (Homoptera: Aphididae) in Nigeria, 52 (1995) 35

Night time grazing

The effect of night grazing by wigeon (*Anas penelope*) on winter-sown wheat in Japan and the efficacy of black plastic flags as scaring devices, 59 (1996) 81

Nitrate

Effect of storage and composting on the properties and degradability of cattle manure, 54 (1995) 203

Factors affecting nitrate leaching from sewage sludges applied to a sandy soil in arable agriculture, 58 (1996) 171

Reducing nitrogen losses by decreasing mineral fertilisation in horticultural crops of eastern Spain, 59 (1996) 217

Nitrate content in water

Nitrate pollution of groundwater in northern China, 59 (1996) 223

Nitrate leaching

Lysimeter study of the fate of nutrients following subsurface injection and surface application of dairy pond sludge to pasture, 58 (1996) 187

Nitrate leaching and strawberry production under drip irrigation management, 56 (1995) 121

The impact on hydrology and water quality of woodland and set-aside establishment on lowland clay soils, 54 (1995) 215

Winter cover crops in a vegetable cropping system: Impacts on nitrate leaching, soil water, crop yield, pests and management costs, 59 (1996) 1

Nitrate pollution

Nitrate pollution of groundwater in northern China, 59 (1996) 223

Nitrogen

Economic-environmental tradeoffs among alternative crop rotations, 60 (1996) 17

Effects of ammonia and root-knot nematode on tomato, 53 (1995) 71

Effects of riparian set-aside on soil characteristics in an agricultural landscape: Implications for nutrient transport and retention, 55 (1995) 61

Effects of soil management on crop nitrogen and insect damage in organic vs. conventional tomato fields, 57 (1996) 179

Factors affecting nitrate leaching from sewage sludges applied to a sandy soil in arable agriculture, 58 (1996) 171

Lysimeter study of the fate of nutrients following subsurface injection and surface application of dairy pond sludge to pasture, 58 (1996) 187

Nutrient budgets and status in three pairs of conventional and alternative mixed cropping farms in Canterbury, New Zealand, 52 (1995) 149

Nitrogen fertiliser amount

Nitrate pollution of groundwater in northern China, 59 (1996) 223

Nitrogen fertilization

Energy output:input ratio of maize and sorghum management systems in eastern Nebraska, 53 (1995) 271

Nitrogen fixation

Dry matter and nitrogen accumulation by three leguminous green manure species and the yield of a following wheat crop in an organic production system, 57 (1996) 189

Enumeration and N₂ fixation potential of *Rhizobium leguminosarum* biovar *trifolii* grown in soil with varying pH values and heavy metal concentrations, 61 (1997) 103

Use of ¹³C and ¹⁵N isotopes to investigate O₃ effects on C and N metabolism in soybeans. Part II. Nitrogen uptake, fixation, and partitioning, 60 (1996) 61

Nitrogen limitation

Sustainable Traditional Agriculture in the Tai Lake Region of China, 61 (1997) 177

Nitrogen mineralisation

Dynamic transformation of sewage sludge and farmyard manure components. 1. Content of humic substances and mineralisation of organic carbon and nitrogen in incubated soils, 58 (1996) 121

No-till agroecosystem

Soil carbohydrates in aggrading and degrading agroecosystems: influences of fungi and aggregates, 54 (1995) 77

Non-functional mycorrhizae

Influence of native endomycorrhiza, soil flooding and nurse plant on mycorrhizal status and growth of purple nutsedge (*Cyperus rotundus* L.), 61 (1997) 51

Non-target effects

Factors determining the effects of pesticides upon butterflies inhabiting arable farmland, 61 (1997) 1

Numida meleagris

The effectiveness of helmeted guineafowl *Numida meleagris* (Linnaeus 1766) in controlling the banded fruit weevil *Phlyctinus callosus* (Schönherr 1826), and their impact on other invertebrates in apple orchards in the Western Cape Province, South Africa, 55 (1995) 169

Nurse plant

Influence of native endomycorrhiza, soil flooding and nurse plant on mycorrhizal status and growth of purple nutsedge (*Cyperus rotundus* L.), 61 (1997) 51

Nutrient availability

Winter cover crops in a vegetable cropping system: Impacts on nitrate leaching, soil water, crop yield, pests and management costs, 59 (1996) 1

Nutrient budgets

Nutrient budgets and status in three pairs of conventional and alternative mixed cropping farms in Canterbury, New Zealand, 52 (1995) 149

Nutrient composition

Improving the agricultural value of a semi-arid soil by addition of sewage sludge and almond residue, 58 (1996) 115

Nutrient cycling

Chemical dynamics in slash-and-burn agriculture, 58 (1996) 49

Soil biological dynamics in slash-and-burn agriculture, 58 (1996) 61

Sustainable Traditional Agriculture in the Tai Lake Region of China, 61 (1997) 177

Nutrient leaching

Nutrient losses in runoff water following application of different fertilisers to grassland cut for silage, 55 (1995) 181

Nutrient uptake

Mycorrhizal colonization and nutrient concentration of naturally grown plants on gypsum mine spoils in India, 61 (1997) 13

Trace metals uptake and distribution in corn plants grown on a 6-year urban waste compost amended soil, 58 (1996) 199

Nutrients

Alleviation of injurious effects of sulphur dioxide on soybean by modifying NPK nutrients, 57 (1996) 49

Nutritional ecology

Effects of soil management on crop nitrogen and insect damage in organic vs. conventional tomato fields, 57 (1996) 179

Nutritional history

Influence of host plant abundance and insect diet on the host selection behavior of *Maruca testulalis* Geyer (Lepidoptera: Pyralidae) and *Riptortus dentipes* Fab (Hemiptera: Alydidae), 60 (1996) 71

Oceania

Potential distribution of *Chromolaena odorata* (siam weed) in Australia, Africa and Oceania, 59 (1996) 89

Odocoileus virginianus

Annual variation in white-tailed deer damage in commercial nurseries, 55 (1995) 213

Oilseed rape

The effect on the woodpigeon (*Columba palumbus*) of the introduction of oilseed rape into Britain, 61 (1997) 113

Onion

Evaluation of an onion thrips pest management program for onions in New York, 55 (1995) 51

Onion couch

The fate of morphologically different populations of *Arrhenatherum elatius* transplanted into arable and semi-natural habitats, 60 (1996) 107

Onion thrips

Evaluation of an onion thrips pest management program for onions in New York, 55 (1995) 51

Ontario

A conceptual model of cumulative environmental effects of agricultural land drainage, 53 (1995) 99

Open-top chamber

Exposure of a grass-clover mixture to ozone in open-top chambers—effects on yield, quality and botanical composition, 59 (1996) 55

Organic agriculture

Energy analysis of tillage and herbicide inputs in alternative weed management systems, 52 (1995) 119

Yield, vitamin and mineral contents of organically and conventionally grown carrots and cabbage, 61 (1997) 155

Organic farming

Dry matter and nitrogen accumulation by three leguminous green manure species and the yield of a following wheat crop in an organic production system, 57 (1996) 189

Effects of manure treatment and soil compaction on plant production of a dairy farm system converting to organic farming practice, 56 (1996) 173

Soil-fertility management and host preference by European corn borer, *Ostrinia nubilalis* (Hübner), on *Zea mays* L.: A comparison of organic and conventional chemical farming, 56 (1995) 1

Organic resource management

Organic resource management in banana-based cropping systems of the Lake Victoria Basin, Uganda, 59 (1996) 171

Organic waste

Effects of organic-waste compost addition on sesame growth, yield and chemical composition, 60 (1996) 157

Lysimeter study of the fate of nutrients following subsurface injection and surface application of dairy pond sludge to pasture, 58 (1996) 187

Organically bound Cu, Pb, Cd

Dynamic transformation of sewage sludge and farmyard manure components. 2. Copper, lead and cadmium forms in incubated soils, 58 (1996) 127

Oryza sativa

Effect of rice variety on methane emission from Louisiana rice, 54 (1995) 109

Effects of enhanced UV-B radiation on the growth of rice and its susceptibility to rice blast under glasshouse conditions, 52 (1995) 223

Spatial variability of soil salinity at different scales in the mangrove rice agro-ecosystem in West Africa, 54 (1995) 1

***Oryza sativa* (rice)**

Effects of ozone on dry matter partitioning and yield of Japanese cultivars of rice (*Oryza sativa* L.), 53 (1995) 109

Effects of ozone on the light use of rice (*Oryza sativa* L.) plants, 53 (1995) 1

Ovipositional preference

Soil-fertility management and host preference by European corn borer, *Ostrinia nubilalis* (Hübner), on *Zea mays* L.: A comparison of organic and conventional chemical farming, 56 (1995) 1

Oxisol soils

Fine root mineralization, soil organic matter and exchangeable cation dynamics in slash and burn agriculture in the semi-arid northeast of Brazil, 59 (1996) 191

Oxisols

Historical land use evolution in a tropical acid upland agro-ecosystem, 53 (1995) 83

Ozone

A time-concentration study on the effects of ozone on spring wheat (*Triticum aestivum* L.). 1. Effects on yield, 57 (1996) 159

Assessment of EDU stem injections as a technique to investigate the response of trees to ambient ozone in field conditions, 59 (1996) 33

Effects of ozone on dry matter partitioning and yield of Japanese cultivars of rice (*Oryza sativa* L.), 53 (1995) 109

Effects of ozone on the light use of rice (*Oryza sativa* L.) plants, 53 (1995) 1

Exposure of a grass-clover mixture to ozone in open-top chambers—effects on yield, quality and botanical composition, 59 (1996) 55

Use of ^{13}C and ^{15}N isotopes to investigate O_3 effects on C and N metabolism in soybeans. Part I. C fixation and translocation, 59 (1996) 69

Use of ^{13}C and ^{15}N isotopes to investigate O_3 effects on C and N metabolism in soybeans. Part II. Nitrogen uptake, fixation, and partitioning, 60 (1996) 61

Ozone concentration gradient

Exposure of a grass-clover mixture to ozone in open-top chambers—effects on yield, quality and botanical composition, 59 (1996) 55

P-saturated areas

Grazing animal husbandry based on sustainable nutrient management, 52 (1995) 213

Paddy soil

Methane sources and sinks in paddy rice soils: relationship to emissions, 53 (1995) 243

Panicum miliaceum

Effect on plants of sulphadimethoxine used in intensive farming (*Panicum miliaceum*, *Pisum sativum* and *Zea mays*), 52 (1995) 103

Parafilaria bovicola

The effect of ivermectin on the development and reproduction of the dung-breeding fly *Musca nevillei* Kleyhans (Diptera, Muscidae), 53 (1995) 13

Parasitoid

Natural control of the Small Ermine Moth *Yponomeuta padella* (L.), 52 (1995) 93

Oviposition behaviour of the polyphagous aphid parasitoid *Aphidius colemani* Viereck (Hymenoptera: Aphidiidae), 52 (1995) 13

Particle size fractions

The supply of phosphorus from native, inorganic phosphorus pools in continuously cultivated Mexican agroecosystems, 57 (1996) 197

Partitioning

Use of ^{13}C and ^{15}N isotopes to investigate O_3 effects on C and N metabolism in soybeans. Part II. Nitrogen uptake, fixation, and partitioning, 60 (1996) 61

Partners with Nature

Consumer response to integrated pest management and certification, 60 (1996) 97

Pasture

Ecological effects of the invasive weed species *Senecio jacobaea* L. (ragwort) in a New Zealand pasture, 56 (1995) 19

Exposure of a grass-clover mixture to ozone in open-top chambers—effects on yield, quality and botanical composition, 59 (1996) 55

Slash-and-burn agriculture, conversion to pasture, and deforestation in two Brazilian Amazon colonies, 59 (1996) 115

Pasture improvement

Seasonal dung beetle activity and dung dispersal in selected South African habitats: implications for pasture improvement in Australia, 58 (1996) 157

Pasture legumes

Phosphate fertilization primes production of rangeland on brown rendzina soils in the Galilee, Israel, 59 (1996) 43

Peasant farmers

Hill-slope agro-ecosystems and their implications on environmental systems in rural southwestern Nigeria, 61 (1997) 97

Pelargonium

Soil rehabilitation and erosion control through agro-ecological practices on Reunion Island (French Overseas Territory, Indian Ocean), 59 (1996) 149

Perennial grains

Incidence and severity of viral disease symptoms on eastern gamagrass within monoculture and polycultures, 59 (1996) 139

Perennials

Insects, plants and succession: advantages of long-term set-aside, 53 (1995) 201

Permeability

Permeability of hedgerows to predatory carabid beetles, 52 (1995) 141

Peru

Soil and water conservation by contour hedging in the humid tropics of Peru, 57 (1996) 17

Pest management

Evaluation of an onion thrips pest management program for onions in New York, 55 (1995) 51

Pest-control alternatives

Assessing the relative environmental impacts of agricultural pesticides: the quest for a holistic method, 55 (1995) 153

Pesticide

Assessing the impact of pesticides on the environment, 60 (1996) 81

Economic-environmental tradeoffs among alternative crop rotations, 60 (1996) 17

Factors determining the effects of pesticides upon butterflies inhabiting arable farmland, 61 (1997) 1

The impact of agricultural practices on biodiversity, 55 (1995) 201

Variability in pesticide use as a factor in measuring and bringing about reduction in pesticide usage in apple orchards, 59 (1996) 97

pH

The supply of phosphorus from native, inorganic phosphorus pools in continuously cultivated Mexican agroecosystems, 57 (1996) 197

Phaseolus vulgaris

Predator-prey association in mono- and dicultures: Effect of maize and bean vegetation, 54 (1995) 115

Philippines

Historical land use evolution in a tropical acid upland agroecosystem, 53 (1995) 83

Phlyctinus callosus

The effectiveness of helmeted guineafowl *Numida meleagris* (Linnaeus 1766) in controlling the banded fruit weevil *Phlyctinus callosus* (Schönherr 1826), and their impact on other invertebrates in apple orchards in the Western Cape Province, South Africa, 55 (1995) 169

Phosphate

Influence of phosphate fertilization on fungal alkaline phosphatase and succinate dehydrogenase activities in arbuscular mycorrhiza of soybean and pineapple, 53 (1995) 63

Phosphinothricin

Interaction of soil microflora with the bioherbicide phosphinothricin, 54 (1995) 165

Phosphorus

Effects of riparian set-aside on soil characteristics in an agricultural landscape: Implications for nutrient transport and retention, 55 (1995) 61

Lysimeter study of the fate of nutrients following subsurface injection and surface application of dairy pond sludge to pasture, 58 (1996) 187

Nutrient budgets and status in three pairs of conventional and alternative mixed cropping farms in Canterbury, New Zealand, 52 (1995) 149

Phosphorus fertilizer

Phosphate fertilization primes production of rangeland on brown rendzina soils in the Galilee, Israel, 59 (1996) 43

Phosphorus fractionation

The supply of phosphorus from native, inorganic phosphorus pools in continuously cultivated Mexican agroecosystems, 57 (1996) 197

Phosphorus storage

Phosphorus storage capacity of uplands, wetlands and streams of the Lake Okeechobee Watershed, Florida, 59 (1996) 203

Phytometers

The effect of nitrogen fertiliser on the growth of *Bromus sterilis* in field boundary vegetation, 53 (1995) 185

Pig slurry

Laboratory studies on the application of wheat straw and pig slurry to soil and the resulting environmental implications, 61 (1997) 35

Pima

Carbon dioxide and temperature effects on pima cotton growth, 54 (1995) 17

Pineapple

Influence of phosphate fertilization on fungal alkaline phosphatase and succinate dehydrogenase activities in arbuscular mycorrhiza of soybean and pineapple, 53 (1995) 63

Pisum sativum

Effect on plants of sulphadimethoxine used in intensive farming (*Panicum miliaceum*, *Pisum sativum* and *Zea mays*), 52 (1995) 103

Plant disease

Incidence and severity of viral disease symptoms on eastern gamagrass within monoculture and polycultures, 59 (1996) 139

Plant nutrients

Yield, vitamin and mineral contents of organically and conventionally grown carrots and cabbage, 61 (1997) 155

Plant productivity

Effects of compost-derived humic acids on vegetable biomass production and microbial growth within a plant (*Cichorium intybus*)-soil system: a comparative study, 58 (1996) 133

Plant stress

Are mediterranean plant species likely to have a distinctive response to SO₂ pollution?, 55 (1995) 71

Plant-animal production

How land condition alters plant-animal relationships in Australia's tropical rangelands, 56 (1995) 77

Plant-pest interactions

Winter cover crops in a vegetable cropping system: Impacts on nitrate leaching, soil water, crop yield, pests and management costs, 59 (1996) 1

Plants

Effects of fluoride and acidity on early plant growth, 52 (1995) 205

Ploughing

Insects, plants and succession: advantages of long-term set-aside, 53 (1995) 201

Pollinators

Insects, plants and succession: advantages of long-term set-aside, 53 (1995) 201

Polyculture

Incidence and severity of viral disease symptoms on eastern gamagrass within monoculture and polycultures, 59 (1996) 139

Polyphagous predators

Some effects of polyphagous predators on an outbreak of cereal aphid (*Sitobion avenae* F.) and orange wheat blossom midge (*Sitodiplosis mosellana* Géhin), 59 (1996) 181

***Populus* (hybrid poplar)**

Assessment of EDU stem injections as a technique to investigate the response of trees to ambient ozone in field conditions, 59 (1996) 33

Potassium

Caesium and strontium uptake by two pasture plant species grown in organic and inorganic soils, 56 (1995) 37

Predators

Predator-prey association in mono- and dicultures: Effect of maize and bean vegetation, 54 (1995) 115

Predators of aphids

The effects of artificial weed strips on diversity and abundance of the arthropod fauna in a Swiss experimental apple orchard, 60 (1996) 47

Predatory mites

Integrated mite control in apples in Queensland, Australia, 60 (1996) 129

Primary and secondary seed dispersal

Dispersal of *Bromus sterilis* and *Anthriscus sylvestris* seed within arable field margins, 59 (1996) 107

Processing

Determinants of cassava distribution in Nigeria, 60 (1996) 139

Profitability

Soil erosion and environmental impact of vegetable production in the Cameron Highlands, Malaysia, 60 (1996) 29

Purple nutsedge

Influence of native endomycorrhiza, soil flooding and nurse plant on mycorrhizal status and growth of purple nutsedge (*Cyperus rotundus* L.), 61 (1997) 51

Pyrethrum requirements

Qualitative land suitability assessment for pyrethrum cultivation in west Kenya based upon computer-captured expert knowledge and GIS, 56 (1996) 187

Pyricularia grisea

Effects of enhanced UV-B radiation on the growth of rice and its susceptibility to rice blast under glasshouse conditions, 52 (1995) 223

Quality

Growth, morphology and yield of wheat, barley and oats grown at elevated atmospheric CO₂ concentration in a cool, maritime climate, 57 (1996) 9

Queensland

Integrated mite control in apples in Queensland, Australia, 60 (1996) 129

Rabi

Population pressure, environmental constraints and agricultural change in Bangladesh: examples from three agroecosystems, 55 (1995) 95

Radio-tracing

Movements of *Abax parallelepipedus* (Coleoptera, Carabidae) in woody habitats of a hedgerow network landscape: a radio-tracing study, 61 (1997) 133

Ragwort

Ecological effects of the invasive weed species *Senecio jacobaea* L. (ragwort) in a New Zealand pasture, 56 (1995) 19

Rainfed rice

The fallow period as a weed-break in shifting cultivation (tropical wet forests), 54 (1995) 31

Rana temporaria

The effect of ammonium nitrate fertiliser on frog (*Rana temporaria*) survival, 61 (1997) 69

Rangeland

A research framework to achieve sustainable use of rangeland, 57 (1996) 91

How land condition alters plant-animal relationships in Australia's tropical rangelands, 56 (1995) 77

Recirculating systems

An artificial productive ecosystem based on a fish/bacteria/plant association. 2. Performance, 53 (1995) 19

Recycling

Effects of organic-waste compost addition on sesame growth, yield and chemical composition, 60 (1996) 157

Reduced tillage

Energy analysis of tillage and herbicide inputs in alternative weed management systems, 52 (1995) 119

Reduction

Variability in pesticide use as a factor in measuring and bringing about reduction in pesticide usage in apple orchards, 59 (1996) 97

Regrowth

The fate of morphologically different populations of *Arrhenatherum elatius* transplanted into arable and semi-natural habitats, 60 (1996) 107

Regulation

Impacts of agricultural herbicide use on terrestrial wildlife in temperate landscapes: A review with special reference to North America, 52 (1995) 67

Relative importance

Determinants of cassava distribution in Nigeria, 60 (1996) 139

Research

Impacts of agricultural herbicide use on terrestrial wildlife in temperate landscapes: A review with special reference to North America, 52 (1995) 67

Resource management

System dynamics and the definition of research domains for the northern Guinea savanna of West Africa, 57 (1996) 133

Reunion Island

Soil rehabilitation and erosion control through agro-ecological practices on Reunion Island (French Overseas Territory, Indian Ocean), 59 (1996) 149

Rhizobium

Enumeration and N₂ fixation potential of *Rhizobium leguminosarum* biovar *trifolii* grown in soil with varying pH values and heavy metal concentrations, 61 (1997) 103

Use of ¹³C and ¹⁵N isotopes to investigate O₃ effects on C and N metabolism in soybeans. Part II. Nitrogen uptake, fixation, and partitioning, 60 (1996) 61

Rice

Energy-use patterns in sub-tropical rice-wheat cropping under short term application of crop residue and fertilizer, 61 (1997) 59

Rice (*Oryza sativa*)

Evaluating baseline data for copper, manganese, nickel and zinc in rice, yam, cassava and guinea grass from cultivated soils in Nigeria, 53 (1995) 47

Riparian

Effects of riparian set-aside on soil characteristics in an agricultural landscape: Implications for nutrient transport and retention, 55 (1995) 61

Riptortus dentipes

Influence of host plant abundance and insect diet on the host selection behavior of *Maruca testulalis* Geyer (Lepidoptera: Pyralidae) and *Riptortus dentipes* Fab (Hemiptera: Alydidae), 60 (1996) 71

Root distribution

Effects of different methods of soil tillage and biomass application on crop yields and soil properties in agroforestry with high tree competition, 52 (1995) 129

Root nodule

Use of ¹³C and ¹⁵N isotopes to investigate O₃ effects on C and N metabolism in soybeans. Part I. C fixation and translocation, 59 (1996) 69

Use of ¹³C and ¹⁵N isotopes to investigate O₃ effects on C and N metabolism in soybeans. Part II. Nitrogen uptake, fixation, and partitioning, 60 (1996) 61

Root rhizosphere

Methane sources and sinks in paddy rice soils: relationship to emissions, 53 (1995) 243

Rotation

The impact of agricultural practices on biodiversity, 55 (1995) 201

Runoff

Assessing the impact of pesticides on the environment, 60 (1996) 81

Soil and water conservation by contour hedging in the humid tropics of Peru, 57 (1996) 17

Runoff water

Nutrient losses in runoff water following application of different fertilisers to grassland cut for silage, 55 (1995) 181

Rural development

Farming systems dynamics: Impact of increasing population density and the availability of land resources on changes in agricultural systems. The case of Sukumaland, Tanzania, 56 (1996) 203

Rural digester

Temperature effect on anaerobic digestion of bedding straw in a one phase system at different inoculum concentration, 54 (1995) 55

Rural landscape

Population trends in selected species of farmland birds in relation to recent developments in agriculture in the St. Lawrence Valley, 57 (1996) 103

Ryegrass

Testing low-quality urban composts for agriculture: germination and seedling performance of plants, 54 (1995) 127

SO₂

Are mediterranean plant species likely to have a distinctive response to SO₂ pollution?, 55 (1995) 71

Solanum esculentum

Effects of soil management on crop nitrogen and insect damage in organic vs. conventional tomato fields, 57 (1996) 179

SPAD

Assessment of EDU stem injections as a technique to investigate the response of trees to ambient ozone in field conditions, 59 (1996) 33

Sand deposition

On shelterbelt design for combating sand invasion, 57 (1996) 81

Sand encroachment

On shelterbelt design for combating sand invasion, 57 (1996) 81

Saprophytic fungi

Soil carbohydrates in aggrading and degrading agroecosystems: influences of fungi and aggregates, 54 (1995) 77

Scarabaeidae

Seasonal dung beetle activity and dung dispersal in selected South African habitats: implications for pasture improvement in Australia, 58 (1996) 157

Sediment

The impact of selenium supplemented fertilization on selenium in lake ecosystems in Finland, 54 (1995) 137

Seed bank

The fallow period as a weed-break in shifting cultivation (tropical wet forests), 54 (1995) 31

Seed mark and recapture

Dispersal of *Bromus sterilis* and *Anthriscus sylvestris* seed within arable field margins, 59 (1996) 107

Seed-set

Localized failure of a weed biological control agent attributed to insecticide drift, 52 (1995) 197

Selectivity

Population dynamics of aphids and syrphid larvae in winter wheat treated with different rates of pirimicarb, 52 (1995) 51

Selenium

The impact of selenium supplemented fertilization on selenium in lake ecosystems in Finland, 54 (1995) 137

Selenium fertilization

The impact of selenium supplemented fertilization on selenium in lake ecosystems in Finland, 54 (1995) 137

Senecio jacobaea

Ecological effects of the invasive weed species *Senecio jacobaea* L. (ragwort) in a New Zealand pasture, 56 (1995) 19

Senna siamea

Contrasting effects of roots and mulch from three agroforestry tree species on yields of alley cropped maize, 54 (1995) 89

Effects of different methods of soil tillage and biomass application on crop yields and soil properties in agroforestry with high tree competition, 52 (1995) 129

Sesbania punicea

Localized failure of a weed biological control agent attributed to insecticide drift, 52 (1995) 197

Sesbania sesban

Inoculation and phosphorus effects on *Desmodium intortum* and *Sesbania sesban* in the Ethiopian highlands, 56 (1996) 165

Set-aside

Dry matter and nitrogen accumulation by three leguminous green manure species and the yield of a following wheat crop in an organic production system, 57 (1996) 189

Sewage sludge

Factors affecting nitrate leaching from sewage sludges applied to a sandy soil in arable agriculture, 58 (1996) 171

Improving the agricultural value of a semi-arid soil by addition of sewage sludge and almond residue, 58 (1996) 115

Shade

The fallow period as a weed-break in shifting cultivation (tropical wet forests), 54 (1995) 31

Shelterbelt

Modelling the effect of shelterbelts on maize productivity under climate change: An application of the EPIC model, 61 (1997) 163

Shelterbelt design

On shelterbelt design for combating sand invasion, 57 (1996) 81

Shifting cultivation

Development pathways toward sustainable systems following slash-and-burn, 58 (1996) 75

Siam weed

Potential distribution of *Chromolaena odorata* (siam weed) in Australia, Africa and Oceania, 59 (1996) 89

Simulation

Economic-environmental tradeoffs among alternative crop rotations, 60 (1996) 17

Simulation modeling

Assessing the relative environmental impacts of agricultural pesticides: the quest for a holistic method, 55 (1995) 153

Sitobion avenae

Some effects of polyphagous predators on an outbreak of cereal aphid (*Sitobion avenae* F.) and orange wheat blossom midge (*Sitodoplosis mosellana* Géhin), 59 (1996) 181

Sitodoplosis mosellana

Some effects of polyphagous predators on an outbreak of cereal aphid (*Sitobion avenae* F.) and orange wheat blossom midge (*Sitodoplosis mosellana* Géhin), 59 (1996) 181

Slash-and-burn

Alternatives to slash-and-burn: a global imperative, 58 (1996) 3

Development pathways toward sustainable systems following slash-and-burn, 58 (1996) 75

Dynamics of soil physical properties under alternative systems to slash-and-burn, 58 (1996) 39

Effects of slash-and-burn agriculture and deforestation on climate change, 58 (1996) 13

Fine root mineralization, soil organic matter and exchangeable cation dynamics in slash and burn agriculture in the semi-arid northeast of Brazil, 59 (1996) 191

Slash-and-burn agriculture, conversion to pasture, and deforestation in two Brazilian Amazon colonies, 59 (1996) 115

Soil biological dynamics in slash-and-burn agriculture, 58 (1996) 61

Slash-and-burn agriculture

Slash-and-burn agriculture — household perspectives, 58 (1996) 23

Sloping land

Soil and water conservation by contour hedging in the humid tropics of Peru, 57 (1996) 17

Sludge application on soil

Effect of sulphadimethoxine contamination on barley (*Hordeum distichum* L., Poaceae, Liliopsida), 60 (1996) 121

Effect on plants of sulphadimethoxine used in intensive farming (*Panicum miliaceum*, *Pisum sativum* and *Zea mays*), 52 (1995) 103

Smallholder

Determinants of cassava distribution in Nigeria, 60 (1996) 139

Smallholder agriculture

Organic resource management in banana-based cropping systems of the Lake Victoria Basin, Uganda, 59 (1996) 171

Soil

Long-term tillage effects on atrazine and fluometuron sorption in Coastal Plain soils, 60 (1996) 165

Soil biological health and agro-ecological change, 56 (1995) 137

Soil amendment

Laboratory studies on the application of wheat straw and pig slurry to soil and the resulting environmental implications, 61 (1997) 35

Soil biological dynamics

Soil biological dynamics in slash-and-burn agriculture, 58 (1996) 61

Soil biota

Ecological effects of the invasive weed species *Senecio jacobaea* L. (ragwort) in a New Zealand pasture, 56 (1995) 19

Soil compaction

Effects of manure treatment and soil compaction on plant production of a dairy farm system converting to organic farming practice, 56 (1996) 173

Soil erosion

Soil and water conservation by contour hedging in the humid tropics of Peru, 57 (1996) 17

Soil erosion and environmental impact of vegetable production in the Cameron Highlands, Malaysia, 60 (1996) 29

Soil fertility

Nutrient budgets and status in three pairs of conventional and alternative mixed cropping farms in Canterbury, New Zealand, 52 (1995) 149

Organic resource management in banana-based cropping systems of the Lake Victoria Basin, Uganda, 59 (1996) 171

Yield, vitamin and mineral contents of organically and conventionally grown carrots and cabbage, 61 (1997) 155

Soil loss

Hill-slope agro-ecosystems and their implications on environmental systems in rural southwestern Nigeria, 61 (1997) 97

Soil management

Field monitoring of nitrate leaching and water flow in a structured clay soil, 52 (1995) 251

Soil-fertility management and host preference by European corn borer, *Ostrinia nubilalis* (Hübner), on *Zea mays* L.: A comparison of organic and conventional chemical farming, 56 (1995) 1

Soil microorganisms

Effects of compost-derived humic acids on vegetable biomass production and microbial growth within a plant (*Cichorium intybus*)-soil system: a comparative study, 58 (1996) 133

Soil organic C

Soil carbohydrates in aggrading and degrading agro-ecosystems: influences of fungi and aggregates, 54 (1995) 77

Soil organic matter

Effect of storage and composting on the properties and degradability of cattle manure, 54 (1995) 203

Fine root mineralization, soil organic matter and exchangeable cation dynamics in slash and burn agriculture in the semi-arid northeast of Brazil, 59 (1996) 191

Soil physical properties

Dynamics of soil physical properties under alternative systems to slash-and-burn, 58 (1996) 39

Soil rehabilitation

Soil rehabilitation and erosion control through agro-ecological practices on Reunion Island (French Overseas Territory, Indian Ocean), 59 (1996) 149

Soil salinity

Spatial variability of soil salinity at different scales in the mangrove rice agro-ecosystem in West Africa, 54 (1995) 1

Soil structure

Field monitoring of nitrate leaching and water flow in a structured clay soil, 52 (1995) 251

Soil weathering

The supply of phosphorus from native, inorganic phosphorus pools in continuously cultivated Mexican agroecosystems, 57 (1996) 197

Soil, acidification

Modelling recent and historic soil data from the Rothamsted Experimental Station, UK using SAFE, 53 (1995) 161

Solanaceae

Importance of preintroduction surveys in the biological control of *Solanum* weeds in South Africa, 52 (1995) 179

Sorption

Long-term tillage effects on atrazine and fluometuron sorption in Coastal Plain soils, 60 (1996) 165

Sorption-desorption isotherm

Assessment of soluble phosphorus load in surface runoff by soil analyses, 56 (1995) 53

South Africa

Importance of preintroduction surveys in the biological control of *Solanum* weeds in South Africa, 52 (1995) 179

Seasonal dung beetle activity and dung dispersal in selected South African habitats: implications for pasture improvement in Australia, 58 (1996) 157

Soybean

Alleviation of injurious effects of sulphur dioxide on soybean by modifying NPK nutrients, 57 (1996) 49

Influence of host plant abundance and insect diet on the host selection behavior of *Maruca testulalis* Geyer (Lepidoptera: Pyralidae) and *Riptortus dentipes* Fab (Hemiptera: Alydidae), 60 (1996) 71

Influence of phosphate fertilization on fungal alkaline phosphatase and succinate dehydrogenase activities in arbuscular mycorrhiza of soybean and pineapple, 53 (1995) 63

Use of ^{13}C and ^{15}N isotopes to investigate O_3 effects on C and N metabolism in soybeans. Part I. C fixation and translocation, 59 (1996) 69

Use of ^{13}C and ^{15}N isotopes to investigate O_3 effects on C and N metabolism in soybeans. Part II. Nitrogen uptake, fixation, and partitioning, 60 (1996) 61

Spatial variability

Spatial variability of soil salinity at different scales in the mangrove rice agro-ecosystem in West Africa, 54 (1995) 1

Speciation

The impact of selenium supplemented fertilization on selenium in lake ecosystems in Finland, 54 (1995) 137

Species diversity

The Mediterranean grazing ecosystems of the Golan Heights, 54 (1995) 67

Spring wheat

A time-concentration study on the effects of ozone on spring wheat (*Triticum aestivum* L.). 1. Effects on yield, 57 (1996) 159

Stable isotope

Use of ^{13}C and ^{15}N isotopes to investigate O_3 effects on C and N metabolism in soybeans. Part I. C fixation and translocation, 59 (1996) 69

Stage-frequency analysis

The influence of post-flowering pests on cowpea seed yield with particular reference to damage by Heteroptera in southern Benin, 53 (1995) 137

Steam sterilisation

Influence of inoculation with arbuscular mycorrhizal fungi on the growth and mycorrhizal infection of transplanted onion, 53 (1995) 151

Stocking rate

How land condition alters plant-animal relationships in Australia's tropical rangelands, 56 (1995) 77

Stomata

Effects of ammonia and root-knot nematode on tomato, 53 (1995) 71

Stratospheric ozone depletion

Effects of enhanced UV-B radiation on the growth of rice and its susceptibility to rice blast under glasshouse conditions, 52 (1995) 223

Stream sediment

Phosphorus storage capacity of uplands, wetlands and streams of the Lake Okeechobee Watershed, Florida, 59 (1996) 203

Striga gesnerioides

Effect of soils, cropping system and host phenotype on incidence and severity of *Striga gesnerioides* on cowpea in West Africa, 53 (1995) 253

Strip management

The effects of artificial weed strips on diversity and abundance of the arthropod fauna in a Swiss experimental apple orchard, 60 (1996) 47

Sub-Saharan Africa

A review of the evaluation and use of tropical forage legumes in sub-Saharan Africa, 54 (1995) 151

Sub-tropics

Energy-use patterns in sub-tropical rice-wheat cropping under short term application of crop residue and fertilizer, 61 (1997) 59

Sulphadimethoxine

Effect of sulphadimethoxine contamination on barley (*Hordeum distichum* L., Poaceae, Liliopsida), 60 (1996) 121

Effect on plants of sulphadimethoxine used in intensive farming (*Panicum miliaceum*, *Pisum sativum* and *Zea mays*), 52 (1995) 103

Sulphonamides

Effect of sulphadimethoxine contamination on barley (*Hordeum distichum* L., Poaceae, Liliopsida), 60 (1996) 121

Effect on plants of sulphadimethoxine used in intensive farming (*Panicum miliaceum*, *Pisum sativum* and *Zea mays*), 52 (1995) 103

Sulphur

Nutrient budgets and status in three pairs of conventional and alternative mixed cropping farms in Canterbury, New Zealand, 52 (1995) 149

Sulphur dioxide

Alleviation of injurious effects of sulphur dioxide on soybean by modifying NPK nutrients, 57 (1996) 49

Sunflower

Testing low-quality urban composts for agriculture: germination and seedling performance of plants, 54 (1995) 127

Sustainability

Criteria for sustainable livestock production: a proposal for implementation, 53 (1995) 219

Economic indicators to assess the sustainability of conservation farming projects: An evaluation, 57 (1996) 117

Farming systems dynamics: Impact of increasing population density and the availability of land resources on changes in agricultural systems. The case of Sukumaland, Tanzania, 56 (1996) 203

Historical land use evolution in a tropical acid upland agroecosystem, 53 (1995) 83

Soil erosion and environmental impact of vegetable production in the Cameron Highlands, Malaysia, 60 (1996) 29

System dynamics and the definition of research domains for the northern Guinea savanna of West Africa, 57 (1996) 133

Sustainable

A research framework to achieve sustainable use of rangeland, 57 (1996) 91

Sustainable agriculture

Effect of tillage and farming system upon populations and distribution of vesicular-arbuscular mycorrhizal fungi, 52 (1995) 111

Influence of inoculation with arbuscular mycorrhizal fungi on the growth and mycorrhizal infection of transplanted onion, 53 (1995) 151

Population trends in selected species of farmland birds in relation to recent developments in agriculture in the St. Lawrence Valley, 57 (1996) 103

Sustainable Traditional Agriculture in the Tai Lake Region of China, 61 (1997) 177

The supply of phosphorus from native, inorganic phosphorus pools in continuously cultivated Mexican agroecosystems, 57 (1996) 197

Sustainable land use

Development pathways toward sustainable systems following slash-and-burn, 58 (1996) 75

Sustainable stocking rates

Grazing animal husbandry based on sustainable nutrient management, 52 (1995) 213

Sweden

Effect of bean geese (*Anser fabalis*) grazing on winter wheat during migration stopover in southern Sweden, 54 (1995) 103

Sweet corn

Consumer response to integrated pest management and certification, 60 (1996) 97

Swine wastewater management

Constructed wetlands to treat wastewater from dairy and swine operations: a review, 58 (1996) 97

Synchronisation

Syrphids as natural enemies of cereal aphids in Germany: Aspects of their biology and efficacy in different years and regions, 52 (1995) 39

Synergism

Effects of fluoride and acidity on early plant growth, 52 (1995) 205

Syrphids

Population dynamics of aphids and syrphid larvae in winter wheat treated with different rates of pirimicarb, 52 (1995) 51

Syrphids as natural enemies of cereal aphids in Germany: Aspects of their biology and efficacy in different years and regions, 52 (1995) 39

Systems research

A research framework to achieve sustainable use of rangeland, 57 (1996) 91

Tai rain forest

The fallow period as a weed-break in shifting cultivation (tropical wet forests), 54 (1995) 31

Tanzania

Farming systems dynamics: Impact of increasing population density and the availability of land resources on changes in

agricultural systems. The case of Sukumaland, Tanzania, 56 (1996) 203

Taxus

Annual variation in white-tailed deer damage in commercial nurseries, 55 (1995) 213

Technological innovations

Environmental impact on the development of agricultural technology in China: the case of the dike-pond ('jitang') system of integrated agriculture-aquaculture in the Zhujiang Delta of China, 60 (1996) 183

Temperate

Impacts of agricultural herbicide use on terrestrial wildlife in temperate landscapes: A review with special reference to North America, 52 (1995) 67

Temperature

Carbon dioxide and temperature effects on pima cotton growth, 54 (1995) 17

Terrestrial

Impacts of agricultural herbicide use on terrestrial wildlife in temperate landscapes: A review with special reference to North America, 52 (1995) 67

Thailand

Energy analysis of wetland rice systems in Thailand, 52 (1995) 173

Thrips tabaci

Evaluation of an onion thrips pest management program for onions in New York, 55 (1995) 51

Tilapia

An artificial productive ecosystem based on a fish/bacteria/plant association. 2. Performance, 53 (1995) 19

Tillage

Energy output:input ratio of maize and sorghum management systems in eastern Nebraska, 53 (1995) 271

Long-term tillage effects on atrazine and fluometuron sorption in Coastal Plain soils, 60 (1996) 165

The impact of agricultural practices on biodiversity, 55 (1995) 201

Tillage method

Effects of different methods of soil tillage and biomass application on crop yields and soil properties in agroforestry with high tree competition, 52 (1995) 129

Time-concentration study

A time-concentration study on the effects of ozone on spring wheat (*Triticum aestivum* L.). 1. Effects on yield, 57 (1996) 159

Tomato growth

Effects of ammonia and root-knot nematode on tomato, 53 (1995) 71

Tomato yield

Effects of ammonia and root-knot nematode on tomato, 53 (1995) 71

Tortricidae

Movements of Tortricid moths (Lep. Tortricidae) between apple orchards and adjacent ecosystems, 55 (1995) 37

Toxicity

Assessing the impact of pesticides on the environment, 60 (1996) 81

Trace elements

Evaluating baseline data for copper, manganese, nickel and zinc in rice, yam, cassava and guinea grass from cultivated soils in Nigeria, 53 (1995) 47

Traditional agriculture

Sustainable Traditional Agriculture in the Tai Lake Region of China, 61 (1997) 177

Transgenic crops

Agriculture, environment and biotechnology, 53 (1995) 31

Translocation

Use of ^{13}C and ^{15}N isotopes to investigate O_3 effects on C and N metabolism in soybeans. Part I. C fixation and translocation, 59 (1996) 69

Transplanted onion

Influence of inoculation with arbuscular mycorrhizal fungi on the growth and mycorrhizal infection of transplanted onion, 53 (1995) 151

Transplanted rice

Energy analysis of wetland rice systems in Thailand, 52 (1995) 173

Trees against erosion

On shelterbelt design for combating sand invasion, 57 (1996) 81

Trichapion lativentre

Localized failure of a weed biological control agent attributed to insecticide drift, 52 (1995) 197

***Trifolium incarnatum* L.**

Crop-weed interference as influenced by a leguminous or synthetic fertilizer nitrogen source: I. Doublecropping experiments with crimson clover, sweet corn, and lambsquarters, 56 (1995) 93

Crop-weed interference as influenced by a leguminous or synthetic fertilizer nitrogen source: II. Rotation experiments with crimson clover, field corn, and lambsquarters, 56 (1995) 109

Trifolium repens

Caesium and strontium uptake by two pasture plant species grown in organic and inorganic soils, 56 (1995) 37

Tripsacum dactyloides

Incidence and severity of viral disease symptoms on eastern gamagrass within monoculture and polycultures, 59 (1996) 139

***Triticum aestivum* L.**

A time-concentration study on the effects of ozone on spring wheat (*Triticum aestivum* L.). 1. Effects on yield, 57 (1996) 159

Tropical weeds

The fallow period as a weed-break in shifting cultivation (tropical wet forests), 54 (1995) 31

Tween 80

Effects of compost-derived humic acids on vegetable biomass production and microbial growth within a plant (*Cichorium intybus*)-soil system: a comparative study, 58 (1996) 133

UV-B exclusion

Exclusion of UV-B radiation from normal solar spectrum on the growth of mung bean and maize, 61 (1997) 29

UV-B radiation

Effects of enhanced UV-B radiation on the growth of rice and its susceptibility to rice blast under glasshouse conditions, 52 (1995) 223

Uganda

Organic resource management in banana-based cropping systems of the Lake Victoria Basin, Uganda, 59 (1996) 171

Ultisol

Inoculation and phosphorus effects on *Desmodium intortum* and *Sesbania sesban* in the Ethiopian highlands, 56 (1996) 165

Unused spray

Efficiency of the Carbo-Flo process to purify process water contaminated with agricultural pesticides, 54 (1995) 45

Upland soil

Phosphorus storage capacity of uplands, wetlands and streams of the Lake Okeechobee Watershed, Florida, 59 (1996) 203

Urban waste compost

Trace metals uptake and distribution in corn plants grown on a 6-year urban waste compost amended soil, 58 (1996) 199

VAM fungi

Effect of tillage and farming system upon populations and distribution of vesicular-arbuscular mycorrhizal fungi, 52 (1995) 111

Vegetables

An artificial productive ecosystem based on a fish/bacteria/plant association. 2. Performance, 53 (1995) 19

Soil erosion and environmental impact of vegetable production in the Cameron Highlands, Malaysia, 60 (1996) 29

Vegetation

Mycorrhizal colonization and nutrient concentration of naturally grown plants on gypsum mine spoils in India, 61 (1997) 13

Vertisol

Inoculation and phosphorus effects on *Desmodium intortum* and *Sesbania sesban* in the Ethiopian highlands, 56 (1996) 165

Vesicular-arbuscular mycorrhizae

Prospects and problems pertaining to the management of arbuscular mycorrhizae in agriculture, 60 (1996) 197

Vigna unguiculata

Studies on the capability of *Cheilomenes lunata* (Fabricius) (Coleoptera: Coccinellidae) to prey on the cowpea aphid, *Aphis*

craccivora Koch (Homoptera: Aphididae) in Nigeria, 52 (1995) 35

The influence of post-flowering pests on cowpea seed yield with particular reference to damage by Heteroptera in southern Benin, 53 (1995) 137

Vigna unguiculata

Effect of soils, cropping system and host phenotype on incidence and severity of *Striga gesnerioides* on cowpea in West Africa, 53 (1995) 253

Vitamins

Yield, vitamin and mineral contents of organically and conventionally grown carrots and cabbage, 61 (1997) 155

Volatilisation

Assessing the impact of pesticides on the environment, 60 (1996) 81

Lysimeter study of the fate of nutrients following subsurface injection and surface application of dairy pond sludge to pasture, 58 (1996) 187

Washings

Efficiency of the Carbo-Flo process to purify process water contaminated with agricultural pesticides, 54 (1995) 45

Waste management system

Constructed wetlands to treat wastewater from dairy and swine operations: a review, 58 (1996) 97

Water extraction

Assessment of soluble phosphorus load in surface runoff by soil analyses, 56 (1995) 53

Water management

Indigenous community-managed irrigation in Sahelian West Africa, 61 (1997) 83

Water quality

Lysimeter study of the fate of nutrients following subsurface injection and surface application of dairy pond sludge to pasture, 58 (1996) 187

Nutrient losses in runoff water following application of different fertilisers to grassland cut for silage, 55 (1995) 181

Weed

Ecological effects of the invasive weed species *Senecio jacobaea* L. (ragwort) in a New Zealand pasture, 56 (1995) 19

Weed management

Energy output:input ratio of maize and sorghum management systems in eastern Nebraska, 53 (1995) 271

Weed strip

The effects of artificial weed strips on diversity and abundance of the arthropod fauna in a Swiss experimental apple orchard, 60 (1996) 47

West Africa

Spatial variability of soil salinity at different scales in the mangrove rice agro-ecosystem in West Africa, 54 (1995) 1

System dynamics and the definition of research domains for the northern Guinea savanna of West Africa, 57 (1996) 133

Wetland rice

Sustainable Traditional Agriculture in the Tai Lake Region of China, 61 (1997) 177

Wetland soil

Phosphorus storage capacity of uplands, wetlands and streams of the Lake Okeechobee Watershed, Florida, 59 (1996) 203

Wheat

Effect of bean geese (*Anser fabalis*) grazing on winter wheat during migration stopover in southern Sweden, 54 (1995) 103

Energy-use patterns in sub-tropical rice-wheat cropping under short term application of crop residue and fertilizer, 61 (1997) 59

Some effects of polyphagous predators on an outbreak of cereal aphid (*Sitobion avenae* F.) and orange wheat blossom midge (*Sitodiplosis mosellana* Géhin), 59 (1996) 181

The effect of night grazing by wigeon (*Anas penelope*) on winter-sown wheat in Japan and the efficacy of black plastic flags as scaring devices, 59 (1996) 81

The effect of ozone, nitrogen dioxide or nitric oxide fumigation of cereals on the rose grain aphid *Metopolophium dirhodum*, 54 (1995) 187

The fate of morphologically different populations of *Arrhenatherum elatius* transplanted into arable and semi-natural habitats, 60 (1996) 107

Wheat straw

Laboratory studies on the application of wheat straw and pig slurry to soil and the resulting environmental implications, 61 (1997) 35

Wheat yield

Dry matter and nitrogen accumulation by three leguminous green manure species and the yield of a following wheat crop in an organic production system, 57 (1996) 189

White clover

Enumeration and N₂ fixation potential of *Rhizobium leguminosarum* biovar *trifolii* grown in soil with varying pH values and heavy metal concentrations, 61 (1997) 103

Wildlife damage management

Annual variation in white-tailed deer damage in commercial nurseries, 55 (1995) 213

Windbreak

Modelling the effect of shelterbelts on maize productivity under climate change: An application of the EPIC model, 61 (1997) 163

Winter wheat

Population dynamics of aphids and syrphid larvae in winter wheat treated with different rates of pirimicarb, 52 (1995) 51

Winter wheat22i

Effects of different intensities of fertilisers and pesticides on aphids and aphid predators in winter wheat, 52 (1995) 45

Woodpigeon

The effect on the woodpigeon (*Columba palumbus*) of the introduction of oilseed rape into Britain, 61 (1997) 113

Yam (*Dioscorea esculenta*)

Evaluating baseline data for copper, manganese, nickel and zinc in rice, yam, cassava and guinea grass from cultivated soils in Nigeria, 53 (1995) 47

Yield

A time-concentration study on the effects of ozone on spring wheat (*Triticum aestivum* L.). 1. Effects on yield, 57 (1996) 159

Effects of ozone on dry matter partitioning and yield of Japanese cultivars of rice (*Oryza sativa* L.), 53 (1995) 109

Exposure of a grass-clover mixture to ozone in open-top chambers—effects on yield, quality and botanical composition, 59 (1996) 55

Growth, morphology and yield of wheat, barley and oats grown at elevated atmospheric CO₂ concentration in a cool, maritime climate, 57 (1996) 9

Yield loss

The effect of night grazing by wigeon (*Anas penelope*) on winter-sown wheat in Japan and the efficacy of black plastic flags as scaring devices, 59 (1996) 81

Yponomeuta

Natural control of the Small Ermine Moth *Yponomeuta padella* (L.), 52 (1995) 93

Zea mays

Effect on plants of sulphadimethoxine used in intensive farming (*Panicum miliaceum*, *Pisum sativum* and *Zea mays*), 52 (1995) 103

Predator-prey association in mono- and dicultures: Effect of maize and bean vegetation, 54 (1995) 115

Zea mays L.

Crop-weed interference as influenced by a leguminous or synthetic fertilizer nitrogen source: I. Doublecropping experiments with crimson clover, sweet corn, and lambsquarters, 56 (1995) 93

Crop-weed interference as influenced by a leguminous or synthetic fertilizer nitrogen source: II. Rotation experiments with crimson clover, field corn, and lambsquarters, 56 (1995) 109

Zhujiang Delta

Environmental impact on the development of agricultural technology in China: the case of the dike-pond ('jitang') system of integrated agriculture-aquaculture in the Zhujiang Delta of China, 60 (1996) 183

Zinc

Effect of cadmium and zinc interaction on metal uptake and regeneration of tolerant plants in linseed, 61 (1997) 45

Effects of repeated sewage sludge applications on plant accumulation of heavy metals, 55 (1995) 1

